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REPORT
of the
SAN FRANCISCO WATER DEPARTMENT

FISCAL YEAR
1957-1958

J. H. TURNER
General Manager and Chief Engineer

REPORT

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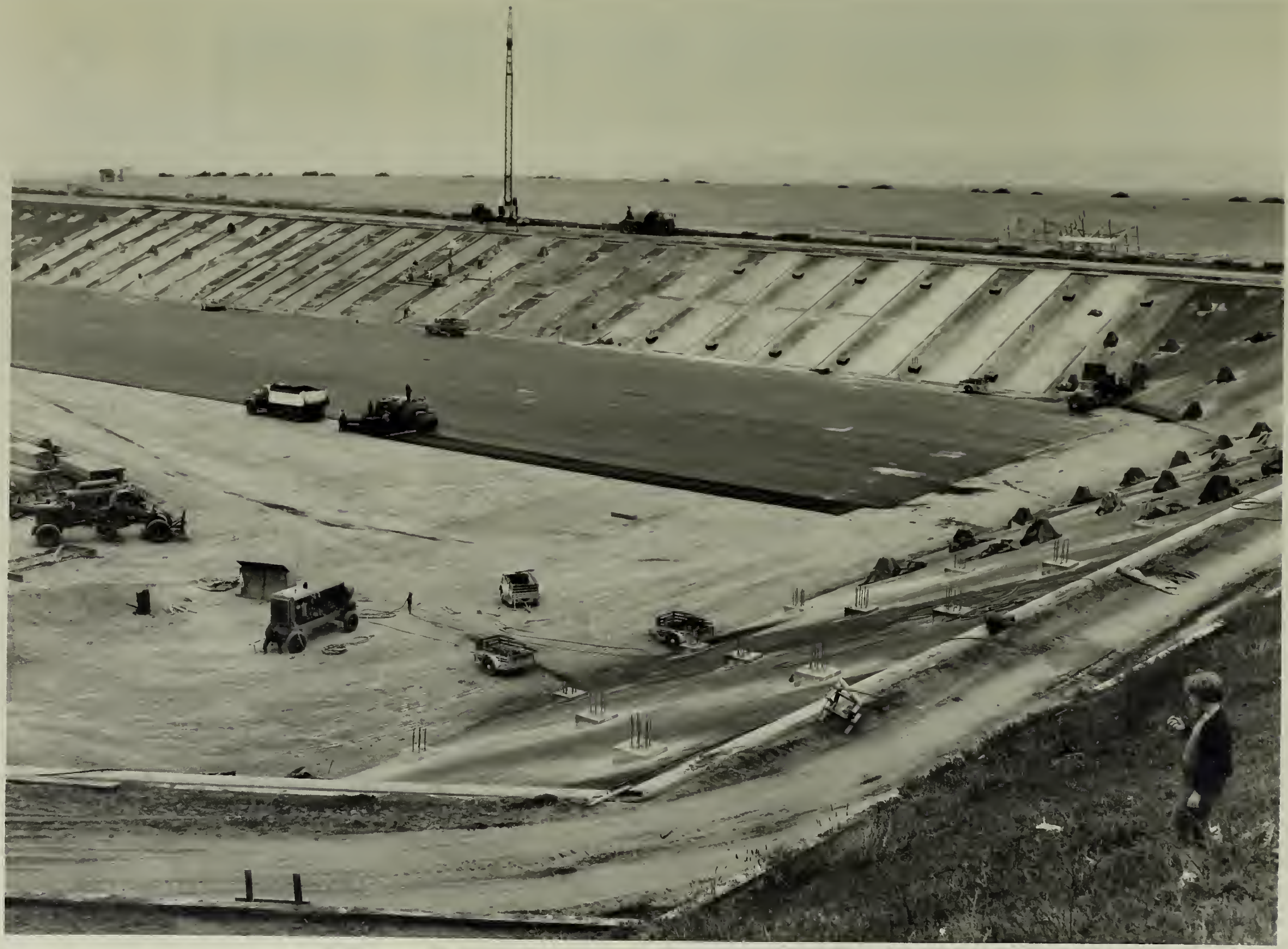

SOUTH BASIN SUNSET RESERVOIR

SAN FRANCISCO WATER DEPARTMENT

J. H. TURNER

General Manager and Chief Engineer

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This twenty-seventh annual report of the Water Department of the City and County of San Francisco, California, follows the revised form of last year's report with minor changes.

Water consumption for the entire system during the year ending June 30, 1958 averaged 140.5 million gallons daily, a decrease of 2.5 million gallons or 1.7 percent under the preceding year. Of this total 94.0 million gallons were used in the San Francisco consumption area, an increase of 4.1 million gallons per day, equal to 4.6 percent and the balance of 46.5 million gallons daily were used in the suburban consumption areas, a decrease of 6.6 million gallons or 12.4 percent. (Some suburban deliveries in northern San Mateo County are included with the San Francisco area figures.)

Although water consumption (input into system) showed a decrease the actual water sales (measured at consumers meters) showed an increase, which apparent contradiction is a result of decrease in unaccounted for water.

The peak 24 hour demand on the system, occurring on June 30, 1958 was 211.3 million gallons, as compared to the previous all time peak of 224.1 million gallons on June 24, 1957.

The low 24 hour demand on the system, occurring on March 23, 1958 was 85.3 million gallons as compared to the 1956-57 low of 92.7 million gallons on February 24, 1957.

The month of July 1957 had the highest daily average demand of any month during the year averaging 185.8 million gallons per day, as compared to an average of 179.7 million gallons per day in June 1957.

Water sales for the year, including municipal non-pay accounts, amounted to $14,437,630, an increase of $443,215 or 3.17 percent over the previous year. Accounts within the City limits increased by $102,939 making a total net sales within the City of $10,039,690 which is 69.5 percent of the Department's total sales. Suburban net sales increased $340,276 for a total suburban sales of $4,397,940 equal to 30.5 percent of the total net sales.

Miscellaneous income totaled $775,729 giving a total gross income for the year of $15,213,359.

The number of active accounts increased from 153,319 on June 30, 1957 to 154,157 on June 30, 1958, a gain of 838 during the year.

Thirty nine contracts for additions and replacements were prepared during the year, for a total amount of $3,276,000.

During the year 54.0 acres of land were sold and none purchased, making a net decrease of 54.0 acres which results in a total of 62,737 acres under the jurisdiction of the Department on June 30, 1958.

Personnel employment totaled 571 on June 30, 1958 of which 84 were on a temporary basis.

A comprehensive program to improve the quality of the water supplied to all consumers was initiated this year. As rapidly as funds became available additional personnel, equipment and supplies were secured to carry on a broad fronted attack against all possible sources of contamination. Included in this program were the following items:

1. A program of improved chlorination by purchase of new equipment to automatically proportion chlorine according to flow; provide chlorination at the outlets of all distribution reservoirs and increase chlorine dosages at all primary chlorination stations.

2. An improved disinfection program for all new, altered or repaired mains.

3. A review of all facilities in order to eliminate contamination hazards.

4. Increased emphasis on cross connection control through more frequent inspection of existing check valve installations and more detailed examination of certain consumer premises where potential cross connections may exist.

5. Initiating a program of periodic cleaning of all distribution reservoirs.

6. An improved and expanded program of flushing distribution mains.

7. A review of leases and permits to prevent pollution or contamination hazards through land use.

8. And initiating a program for purchase of lands within the southerly end of the Peninsula watershed that now create a pollution and contamination hazard, which hazards might soon be greatly increased by subdivision of the property.

An important addition to the current program is the covering of the remaining open distribution reservoirs within the City. This program includes one reservoir which cannot be covered until the Balboa reservoir is constructed and in service. The financing of such an expensive program will probably require a bond issue.

There was a gradual improvement in our program of maintenance of facilities but limited personnel, plus the additional work of repairs and cleanup resulting from a year of heavy runoff, plus the flood of early April, left little time for improved maintenance.

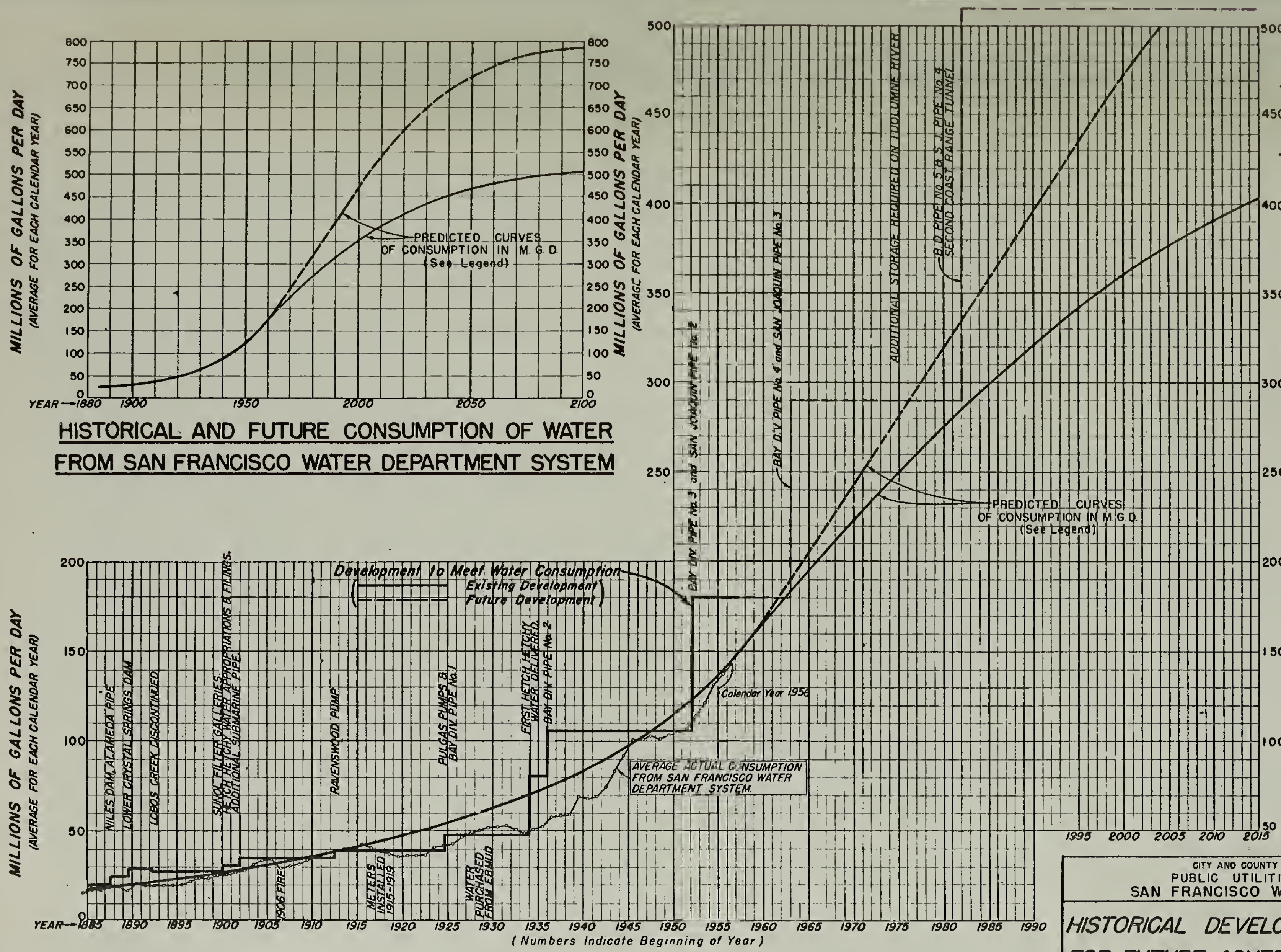
A firm of tax consultants were employed to review the assessments and taxes paid in outside counties, particularly Alameda County, where recent increases have been the greatest. The report was approaching completion at the close of the fiscal year.

The Department's disaster program continues to function as a unit in the Disaster Council and Corps under the direction of A. G. Cook, Rear Admiral (Ret.). The revised instruction manual was distributed to key personnel and a program of issuing identification cards to all employees of the department for use during emergencies was placed in effect.

Other special items affecting Water Department operations which required considerable attention this past year included: two hearings before the State Water Rights Board which had bearing on our water rights in Alameda County and San Mateo County; hearings before the State Highway Staff and Commission on the location of the Junipero Serra Freeway Extension in San Mateo County with final adoption (taken after the close of the fiscal year) of a location ~~satisfactory~~ acceptable to the Water Department; additional effort toward the location of a new corporation yard; and continued emphasis on the replacement of faulty service pipes.

The Capital Improvement program continued in accordance with budgeted monies, all of which are obtained from revenues, with certain alterations made necessary to provide monies for necessary distribution system replacements and additions.

This foreword would not be complete without expressing a sincere appreciation to our personnel for their loyalty and cooperative efforts in maintaining and improving the efficiency of the Department.



HISTORICAL AND FUTURE CONSUMPTION OF WATER FROM SAN FRANCISCO WATER DEPARTMENT SYSTEM

LEGEND

——— PREDICTED SUPPLEMENTAL CONSUMPTION WITHIN S. F. W. D. SERVICE AREA AS SHOWN ON JAN. 14–1957 S. F. WATER POLICY

— — — PREDICTED SUPPLEMENTAL CONSUMPTION IN AREA SHOWN ON EXHIBITS PRESENTED IN MARCH 1955 & APRIL 1936.

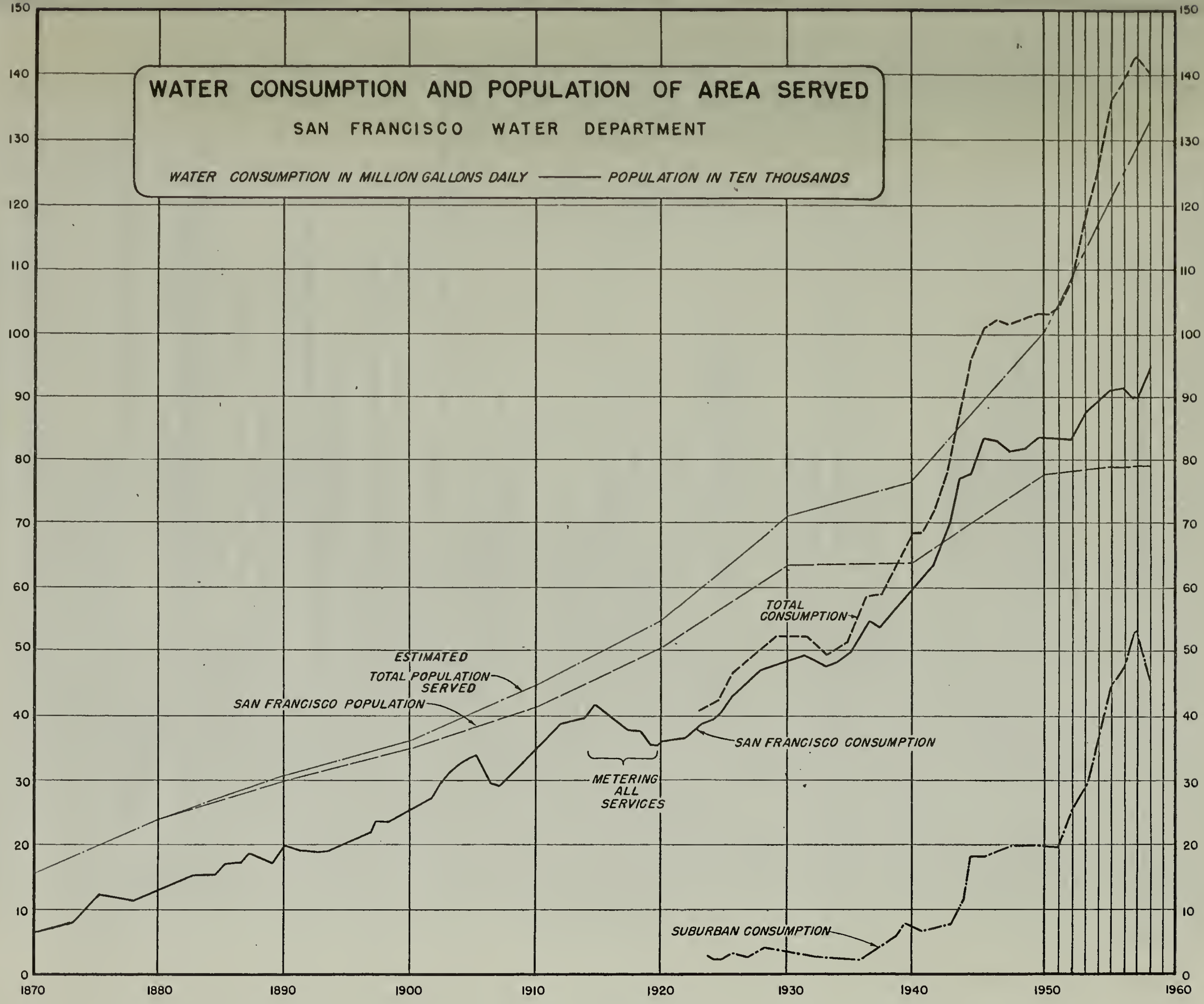
NOTE:–
Aqueduct development to meet water consumption is for delivery to the peninsula reservoirs and consumers from main aqueduct.
Does not include facilities for delivery and distribution therefrom.

Local production of record has varied from none to 94 M.G.D. (Average for one Year.) The average long range yield is about 50 M. G. D.

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
SAN FRANCISCO WATER DEPARTMENT

HISTORICAL DEVELOPMENT & PROGRAM FOR FUTURE AQUEDUCT CONSTRUCTION

APPROVED Geo D Burr	SCALE AS SHOWN	BY J. S. G.	DR. D. J. S.	DRAWING NO. X-1682D
APPROVED J. H. Turner GENERAL MANAGER AND CHIEF ENGINEER		TR. D. J. S.	CH.	
		DATE NOV. 8, 1955	REVISE Oct. 17, 1957	


WATER CONSUMPTION AND POPULATION OF AREA SERVED
SAN FRANCISCO WATER DEPARTMENT
WATER CONSUMPTION IN MILLION GALLONS DAILY ——— POPULATION IN TEN THOUSANDS
ESTIMATED TOTAL POPULATION SERVED
SAN FRANCISCO POPULATION
TOTAL CONSUMPTION
SAN FRANCISCO CONSUMPTION
METERING ALL SERVICES
SUBURBAN CONSUMPTION
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
1870
1880
1890
1900
1910
1920
1930
1940
1950
1960

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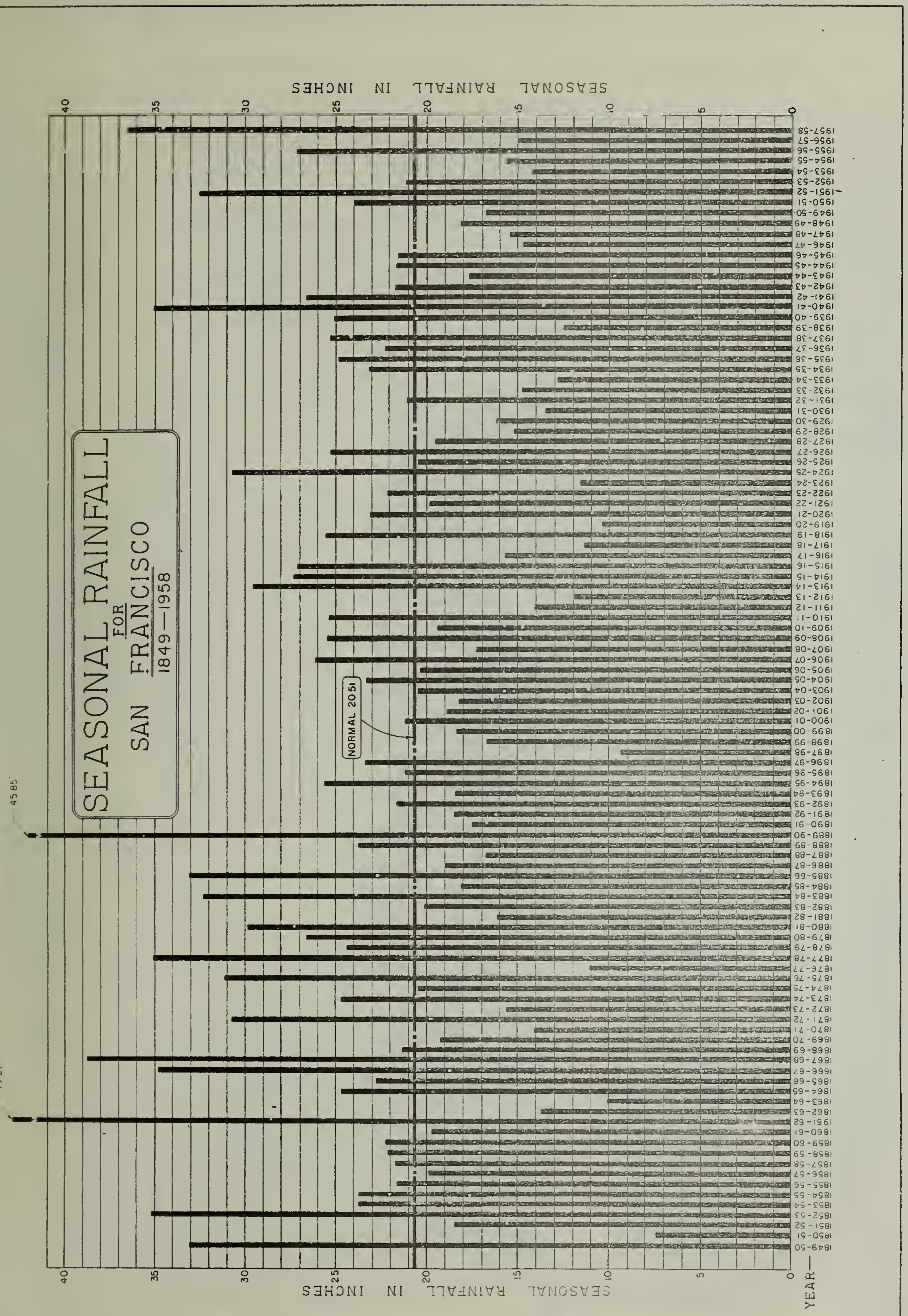
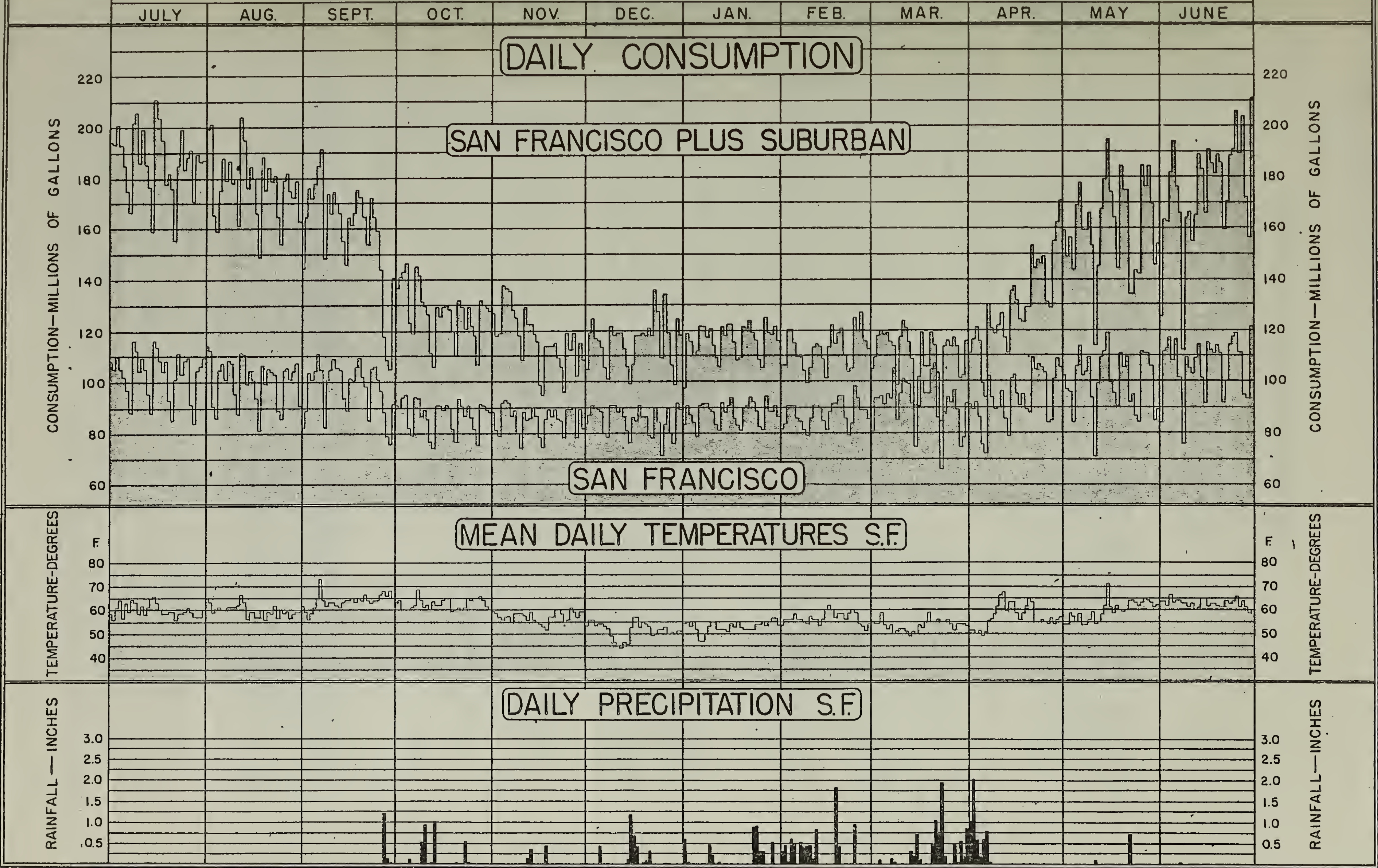


SEASONAL RAINFALL FOR SAN FRANCISCO 1849—1958

CONSUMPTION, TEMPERATURE AND PRECIPITATION RECORDS 1957—1958



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PRODUCTION AND TRANSMISSION

Total water provided for consumption during the year was 51,297.4 million gallons, averaging 140.5 million gallons per day, which is 2.5 million gallons per day less than during the preceding year.

Deliveries to the San Francisco consumption area averaged 94.0 million gallons daily, with deliveries to suburban areas averaging 46.5 million gallons daily. (Some suburban deliveries in northern San Mateo County are included in the San Francisco consumption area figures.)

Deliveries from Hetch Hetchy were	30,366.1 million gals.
Draft from Local Production and storage was	20,931.3 million gals.
Total	51,297.4 million gals.

The total delivery from Hetch Hetchy since October 18,1934 now amounts to 457,488 million gallons or an average of 52.9 million gallons per day. During this same period of time a total of 828,608 million gallons have been released for consumption throughout the system. The difference of 371,120 million gallons, an average of 42.9 million gallons daily, was drawn from local production and storage.

All water delivered to San Francisco was, as heretofore, supplied entirely from San Andreas and Crystal Springs Reservoirs in San Mateo County. Those reservoirs were replenished from local runoff, by water drawn from Calaveras Reservoir in Alameda and Santa Clara Counties, from Sunol filter galleries and from the Hetch Hetchy system in the Sierra Nevada Mountains.

This department delivers water directly from the several transmission and supply lines to practically all cities and towns in San Mateo County; to Palo Alto, Woodside, Mountain View, Sunnyvale, Los Altos and Milpitas in Santa Clara County; to Hayward, Fremont and Newark in Alameda County and to some unincorporated areas in the three counties.

RAINFALL AND CATCHMENT:

The total amount of runoff from the local watersheds which was stored and/or diverted into the system for consumption was 82.3 million gallons per day average for the fiscal year. This is the third highest year of production for the system. The precipitation, output, input, storage changes and productions are given in detail for the local reservoirs.

At Calaveras there was 32.25 inches of rainfall for the season, which is 144.3 percent of normal and is 90.4 percent more than last season. During the fiscal year 6,508.3 million gallons were withdrawn for consumption, 20.8 million gallons were used to flush the pipeline while the net increase in storage was 8,540.4 million gallons, making a useable productivity of 15,069.5

million gallons, an average of 41.29 million gallons per day for the fiscal year. Total runoff into this reservoir, including 22,643.9 million gallons spilled and released to the creek, was 37,692.6 million gallons or 103.3 million gallons per day average for this year.

Peninsula watersheds averaged some 148 percent of normal rainfall as indicated by the readings at the five rain gaging stations on the watersheds.

The rainfall at the San Andreas station was 54.11 inches which was 145.3 percent of normal; at Pilarcitos 66.58 inches, 146.0 percent of normal; at Lower Crystal Springs station 42.68 inches or 153.6 percent of normal; Upper Crystal Springs station 46.20 inches which was 145.5 percent of normal and at the Crystal Springs Cottage station 40.49 inches, equal to 150.5 percent of normal.

Total storage in the four Peninsula reservoirs was increased 562.4 million gallons during the year. The Bay Division Pipelines delivered 29,196.7 million gallons to Crystal Springs Reservoir and there were 41,378.5 million gallons withdrawn for consumption making a useable productivity of 12,744.2 million gallons, an average of 34.9 million gallons per day for the fiscal year.

The Sunol rainfall station recorded 28.27 inches for the year which was 137.9 percent of normal and 102.2 percent more than the preceding year. During this fiscal year some 3,415 million gallons, an average of 9.4 million gallons per day, were collected in the Sunol Filter Galleries as measured at the Brightside Weir.

Rainfall at the Department's Pleasanton Well Field gaging station was 27.93 inches for the year. This was 131.4 percent of normal and 98.1 percent more than the previous year.

STORAGE:

Calaveras storage on July 1, 1957 was 21,251 million gallons (gage 123'1/2")or 67 percent of its capacity. Storage dropped to 15,752 million gallons (gage 107'5½") on December 1, 1957, the low storage for the fiscal year. Withdrawal for consumption was stopped on the 20th of November, 1957 and resumed on May 13, 1958, continuing then for the remainder of the fiscal year. Storage increased to 34,244 million gallons (gage 153'2½") on April 3, 1958, the high storage for the fiscal year. The water level at the end of June 1958 was at gage height 143'8¼" with 29,829 million gallons stored. This was 94.5 percent of its capacity and 8,540 million gallons more than at the beginning of the fiscal year. Between March 17, 1958 and May 25, 1958, 20,086.0 million gallons spilled and 2,557.9 million gallons were otherwise released to the creek making a total of 22,643.9 million gallons or 62.1 million gallons per day.

Crystal Springs storage at the beginning of the year was 17,579 million gallons (gage 110'9¾") which was drawn down to 16,256 million gallons (gage 107'5¾") on December 14, 1957, the low storage of the year. It was filled to 21,466 million gallons (gage 119'8") on April 3, 1958, the maximum storage for the year. On July 1, 1958 there were 17,810 million gallons (gage 111'4½") of water in storage which was 93.6 percent of its capacity without flashboards and 231 million gallons more than at the beginning of the year. The Lower reservoir spilled some 3 billion gallons of water between March 22 and April 27, 1958.

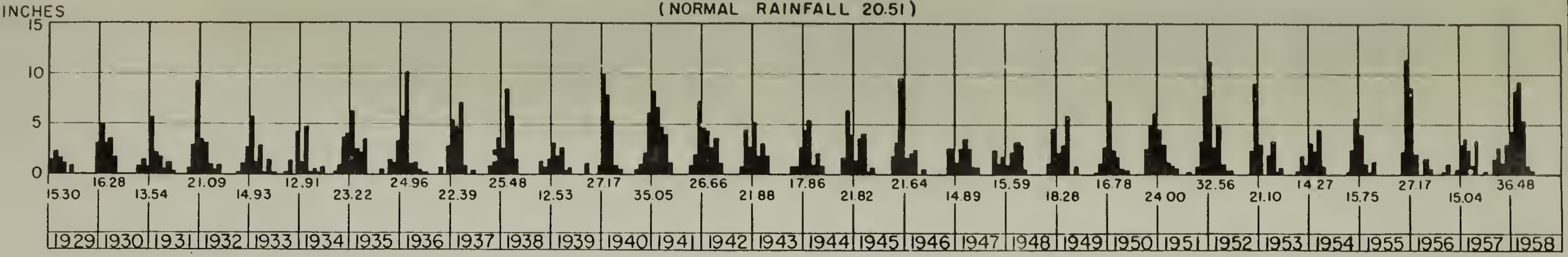
San Andreas storage on July 1, 1957 was 4,964 million gallons (gage 77'11¾"). This was increased to 6,309 million gallons (gage 86'9") on April 6, 1958, the high storage for the year. The lowest storage of 4,670 million gallons (gage 75'11½") was on January 9, 1958 and it rose to 5,165 million gallons (gage 79'4") on July 1, 1958. This was 83 percent of the reservoir's capacity and 201million gallons more than at the beginning of this fiscal year. No record is maintained of the spill from San Andreas Reservoir.

Pilarcitos contained 792 million gallons (gage 37'6¼") of water at the beginning of the year. The storage varied between that quantity and a high of 982 million gallons (gage 43'3") on April 6, 1958. Withdrawals reduced the storage to the year's low of 661 million gallons (gage 33'3") on January 23, 1958. On June 30, 1958 there were 924 million gallons (gage 41'6¼") in storage which is 98 percent of capacity, without flashboards, and 132 million gallons more than at the beginning of the fiscal year.

Lake Merced water has not been withdrawn for consumption since January 4, 1934 but it still remains an emergency source of water supply. On July 1, 1957 there were 2,478 million gallons of water in storage and on June 30, 1958 storage was increased to 2,523 million gallons or 98 percent of capacity.

U. S. WEATHER BUREAU

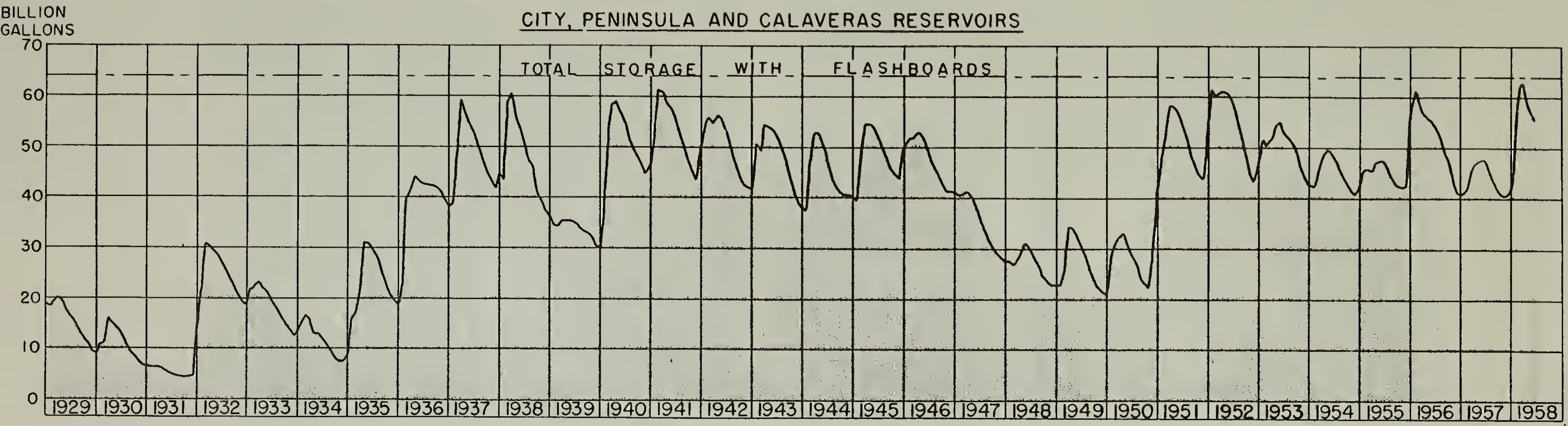
(NORMAL RAINFALL 20.51)



STORAGE IN BILLION GALLONS

SAN FRANCISCO WATER DEPARTMENT

CITY, PENINSULA AND CALAVERAS RESERVOIRS



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TRANSMISSION LINES:

The Calaveras Pipeline carried a total of 6,529.1 million gallons, an average of 17.9 million gallons per day, from the reservoir. There were 21.3 million gallons withdrawn for irrigation and 20.8 million gallons used to flush the pipeline leaving a balance of 6,487.0 million gallons which was delivered to the Alameda Creek Siphon. This draft occurred from July 1 to November 21, 1957 and from May 16, 1958 to June 30, 1958.

The Sunol pipeline delivered a total of 205.2 million gallons of water to the Sunol area from the Alameda Creek Siphon and Calaveras Pipeline during the year. Of this total 144.0 million gallons were used for irrigation of the Water Department lands and 18.7 million gallons were used for the Sunol domestic supply.

No use was made of the Pleasanton pipeline other than to provide minor quantities to local consumers throughout the year.

The Sunol Aqueduct transported 3,414.9 million gallons of Sunol Filter Gallery water to Niles Reservoir during the year. This water was disposed of as follows: through the Niles-Irvington pipeline to Irvington Pumps, 2,242.3 million gallons; through the old 36-inch Alameda pipeline to consumers and the Bunting Gravel Pit for percolation into the Niles Cone, 371.4 million gallons; to local consumption, other than the above, 32.3 million gallons and the balance, 768.9 million gallons was spilled into Clark Ditch from the reservoir.

The Coast Range Tunnel carried 30,366.1 million gallons of Hetch Hetchy water to the Alameda Creek Siphon (83.2 million gallons per day average). A total of 6,529.1 million gallons was released from Calaveras Reservoir into Calaveras pipeline from which 42.1 million gallons was withdrawn, leaving 6,487.0 million gallons, which went into the Alameda Siphon. Deliveries therefrom to the Sunol Area totaled 183.9 million gallons and the remaining 36,669.2 million gallons (an average of 100.5 million gallons per day) was carried through the Irvington Tunnel.

Consumers withdrew 1,918.3 million gallons between Irvington Portal and the Irvington Meters, where there was registered a total flow in the three Bay Division pipelines of 34,750.9 million gallons. Withdrawals for Suburban consumption of 636.8 million gallons and input from Sunol of 2,242.3 million gallons increased the quantity by 1,605.5 million gallons to 36,356.4 million gallons which were transported to the west side of the Bay. Additional withdrawals of 7,159.7 million gallons for suburban consumption on the west side of the Bay left a total of 29,196.7 million gallons which were delivered into Upper Crystal Springs Reservoir.

The two Crystal Springs pipelines carried an average of 72.2 million gallons per day from Lower Crystal Springs Reservoir. This was distributed as follows: to Sunset pipeline and thence to Lake Merced Pump Station, 24.7 million gallons per day; to University Mound Distribution System and to consumers between there and the Millbrae Headquarters, 28.8 million gallons per day and the remaining 18.7 million gallons daily to the distribution systems of the several Peninsula communities as far south as San Carlos.

San Andreas pipeline No. 2 carried an average of 34.5 million gallons daily from the reservoir to the Sunset and College Hill Distribution systems and to consumers along the pipeline.

The Baden-Merced pipeline carried an average of 5.9 million gallons per day, a total of 2,138.6 million gallons from the San Andreas 44-inch pipeline to the Merced-Manor district. The San Andreas 44-inch pipeline drew 2,411.7 million gallons from San Andreas Reservoir. The difference of 273.1 million gallons was used by consumers along the pipeline.

The Crystal Springs Aqueduct was in operation 45 weeks during the year carrying a total of 9,871.8 million gallons of water from the Crystal Springs Pumps to San Andreas Reservoir.

The Pilarcitos Aqueduct to San Andreas Reservoir was in service 48 weeks during the year and carried an average of 6.9 million gallons per day to San Andreas Reservoir.

PUMP STATIONS:

Irvington Pumps were operated between February 18 and March 24, 1958 and from April 17 to the end of the fiscal year, pumping a total of 2,242.3 million gallons of Sunol filter gallery water into the Bay Division Pipeline No. 2.

One or more of the Crystal Springs-San Andreas pumps operated forty five weeks during the year. A total of 9,871.8 million gallons was pumped to San Andreas Reservoir making a daily average of 27.1 million gallons. Crystal Springs booster pumps were not operated during the year.

Baden and Alemany pumps were not operated during the 1957-58 fiscal year. The motors were kept dry and turned over every month and the stations were maintained in a condition of readiness.

Pleasanton Pumps have not been operated for export of water since April 30, 1949. Well O-1 was operated intermittently throughout the year to supply domestic needs of local consumers and six additional wells were operated in conjunction with agricultural leases, by Lessees for irrigation.

There was an estimated 2.5 million gallons of water pumped from Alameda Creek at the Sunol Headquarters and 297.8 million gallons drawn from the Pleasanton Well Field for irrigation use by Lessees on Water Department lands at those locations in 1957-58.

San Francisco wells at Black Avenue and Santa Rita Road, north of Pleasanton, Alameda County, pumped 176.7 million gallons of water for the City of Pleasanton during this fiscal year.

Lake Merced Pumps boosted an average of 24.8 million gallons per day from the Sunset Pipeline pumping 16.0 million gallons average daily to Sunset Reservoir and 8.8 million gallons average per day to Sutro Reservoir.

MAINTENANCE AND OPERATION:

No leaks developed in Bay Division No. 3, Palo Alto, San Andreas No. 1 and 2, San Andreas branch of Sunset or Merced Manor pipelines. One leak was repaired in each of Bay Division No. 2 (a joint leaked); San Andreas 30-inch cross-connection; Sunset (caused by an automobile accident) and Crystal Springs 22-inch pump discharge pipelines. Bay Division No. 1; Crystal Springs No. 1 and Sunol pipelines developed two leaks each with three being repaired in the Crystal Springs No. 2 pipeline, two of these appeared to have been caused by electrolysis.

There were six leaks, all minor, during the year in the old 36 inch Alameda pipeline between Burlingame and Belmont. One of these was caused by a contractor rupturing the pipe. Failure of the pressure regulating valves increased the pressure in this line possibly causing some of the leaks. It is now being fed from Cyrstal Springs No. 1 pipeline instead of No. 2 as formerly, which is regulated manually at the Crystal Springs pump station.

Several leaks developed in the various pipelines at San Francisco Airport. Most of them were due to the corroding of bolts in the 12-inch universal joint pipe.

The heavy runoff this season caused considerable damage to the Department's property. This included washing out of the Sunol Filter Bed Levee system; supporting bents for the Calaveras Pipeline at Creek Crossing No. 5; the Rooney Bridge at the Alameda Siphon; Upper Alameda Creek road and the road to Calaveras cottages. The Sunol gaging station was destroyed as was a portion of the Department's telephone line in Niles Canyon. There was a minor slide west of Helen Drive in Millbrae Meadows, Millbrae and another in the vicinity of San Andreas Outlet Tunnel No. 3.

During one of the storms a tree fell on the high trestle of Pilarcitos Side Flume near the dam. It required several weeks to rebuild the trestle. A slide carried out another section of the same flume.

Considerable mud andsilt were carried into the Lower Crystal Springs Reservoir from the creeks near the Big Laurel and Old Sawyer Camp and into the upper Reservoir principally

from the Donovan Quarry and Swiss Picnic Ground Area. There were 13,500 trees planted in strategic locations on the peninsula watershed for erosion control purposes and it is expected that this program will be continued.

The Sunset Pipeline and its connection with Crystal Springs Pipeline No. 2 at Bellevue and Pepper Avenues, Burlingame, was put into service on March 12, 1958. There has been a noticeable improvement in the pressure since then.

Ten large valves were converted to power operation this fiscal year. These valves were at the following locations: Alameda East Portal on Alameda Creek Siphon; Calaveras Road, Milpitas, Bay Division Pipeline No. 3; El Camino Real and Northumberland Ave., Redwood City, cross connections between Bay Division No. 1 and 2 Pipelines; El Camino Real and Bellevue Avenue, Burlingame, Crystal Springs No. 1 and 2 Pipelines and their cross connection; Crystal Springs Road, San Bruno, and San Andreas Pipeline No. 2 in Venturi Temple.

The Millbrae yard was given a general cleaning and most of the buildings were painted. A modern switchboard was installed, at no cost to the Department, giving an additional trunk line to the Oxford exchange and room for one more trunk line as well as twenty more extensions for future use. A public address system was installed so the switchboard operator can page anyone in the yard.

Fences were reconstructed on the Irvington Portal area property lines. One chlorinator was moved from this Portal and installed at Irvington Pumps.

The Calaveras 10 foot weir was repaired, the approach channel cleaned and a new stilling well for a gage was installed. A cat-walk was constructed on the 44-inch pipe from the needle valve to the weir.

The weed, tule and reed problem in the Peninsula reservoirs is still giving considerable trouble. Remedial measures to date have not been entirely satisfactory.

WATER RIGHTS

In accordance with the Alameda County Water District agreement, the Department released water for replenishment of the underground supply of the Niles Cone and the total released during the year was 410 million gallons.

Billing on former so-called reduced rate and free water contracts continued at regular rates during the year. Those contracts dealt with water rights and right of ways. Suit was filed to nullify the contracts and those remaining in litigation were billed, during the year for $60,412.29 over and above the amount they would have been billed under the "contract" rates. The total amount billed was $337,091.72, this excludes that received from adjudicated accounts. These accounts now bring in $4,000 in revenue which would otherwise not be received.

The Hearing on Applications No's. 17002 and 17003 filed by the Pleasanton Township County Water District and the Alameda County Water District respectively, for a water storage project on Arroyo del Valle, was held before the State Water Rights Board in Oakland on December 2-5, 1957. The City and County of San Francisco appeared as a protestant for the purpose of protecting vested rights in the waters of Livermore Valley, Arroyo de Laguna and Alameda Creek.

On March 25 the Water Rights Board adopted their approval of these applications and permits were issued to the applicants, subject to vested rights and to certain terms and conditions.

The quantities of water due the District and the quantities released by the Water Department to the District for replenishing the underground waters for each of the past five years are, as follows:

Year	Due the District	Released to the District
1954	501,614,000	1,251,654,000
1955	747,020,000	722,995,000
1956	222,850,000	989,290,000
1957	403,850,000	1,538,450,000
1958	None	410,150,000
	1,875,334,000	4,912,539,000

The Sheriff of Alameda County continued to use the U.S. Navy's Camp Shoemaker as Santa Rita Rehabilitation Center during the fiscal year. Water supplied to this institution, as well as to the former Naval Housing Project, Komandorski Village and the Parks Air Force Base, was taken from the Navy's 4.105 and 100 acre tracts within the Pleasanton Water District. Camp Parks daily withdrawal of ground waters varied from a high of 3.6 million gallons to a low of 0.4 million gallons on days when they pumped. No water was withdrawn from either field on February 20 and 21, 1958.

The high water table for this year in the Pleasanton Well Field, as measured in Well No. W103X, was 74.2 occurring in April 1958. Due to the rainfall, this water level is 4.6 feet higher than the high water level of last year as measured by this well.

The Water Department again reimbursed the Pleasanton Water District for electric power charges for pumping "Community Wells" and paid power bills rendered to land owners, except as otherwise provided in the agreement.

The City of Pleasanton continued, throughout the year, to obtain water from the two Department wells, located at Black Avenue and Santa Rita Road and paid all resulting electric power bills. The Department reimbursed the Town for these payments when the water table was below elevation 328 as stipulated in the agreement and credited the Town for the amount of the power bills when the water table was above this elevation, which was from February 2, 1958 to June 21, 1958. The Town was billed for all water used when the water table was above elevation 328 and for all water used in excess of 600,000 gallons per day when the water table was below elevation 328.

During the last fiscal year two new agricultural leases were made for lands bordering Laguna and Alameda Creeks. Under the terms of these leases the Lessees are allowed irrigation water from these creeks and during the year 18.5 million gallons were used.

The tenants on the City's Well Field property near Pleasanton pumped some 330 million gallons of water from City owned wells, for irrigation of this leased property, during this fiscal year.

In the City of San Francisco the City Recreation and Park Department pumped 96.5 million gallons of water from Lake Merced for their own use. At Golden Gate Park this same Department withdrew from ground sources some 300 million gallons of water.

WATER QUALITY AND TREATMENT

GENERAL:

Normal water treatment practices and adequate precautions for safeguarding the San Francisco water supply were in force throughout the year with disinfection of all supplies being continuous.

In general, the water is free of tastes and odors and the quality is good for an unfiltered supply derived primarily from surface sources.

LABORATORY:

All analytical work in the fields of biology, bacteriology and chemistry, except the necessary field tests, was performed in our laboratory, located at Millbrae, which has been certified by the State Department of Public Health as an "Approved Water Laboratory for complete Chemical and Complete Bacteriological Analyses".

Following is a tabulation which summarizes the field and laboratory tests made during the year in connection with water treatment, sanitary control, and special investigations:

Bacteriological Examinations	8935
Routine Microscopical Examination of Algae	315
Electrical Conductivity Measurements	4615
Turbidity Measurements	4800
Partial Chemical Analyses	1458
Routine Fluoride Tests	2646
Color Measurements	799
Dissolved Oxygen Tests	624
Analyses to Determine Origin of Leaks	485
Complaint Investigations	160
Chlorine Residual Tests	3523
Miscellaneous Field Tests	2496
Miscellaneous Laboratory Tests not otherwise included	260
Complete Mineral Analyses	3
Irrigation Water Analyses	24

Due to increasing laboratory work load, only three complete Mineral Analyses were run during the year, however, partial chemical analyses on all our sources of supply show no appreciable change in their mineral content.

CHLORINATION:

Disinfection of all supplies was adequate and continuous throughout the year, with no water being exposed to contamination between the time of last chlorination and the consumer's service. Eight of our chlorination stations operated continuously with the College Hill Station being off for two days for reservoir cleaning,

and the Tesla Station being off for three days for tunnel inspection. The Calaveras, Irvington Pumps, University Mound Line No. 1, University Mound Inlet No. 1 and the Merced Manor stations operated for 6.2; 1.3; 7.3; 5.5 and 7.1 months respectively. Subsequent to May 23, 1958 all water pumped by the Irvington Pumps was rechlorinated by temporary equipment at the request of the State Department of Public Health.

A total of 1,144,661 pounds of chlorine was used during the year, a 0.02% decrease as compared with last year's usage. Forty two and seven tenths percent (42.7%) of the total was used at the Tesla Station, 12.1% in the Alameda Division, 40.4% in the Peninsula Division and 4.8% in the City Distribution Division. Chlorine dosages averaged 16.5 pounds per million gallons at the Tesla Station, 16.0 pounds per million gallons at the Calaveras Station, 8.3 pounds per million gallons at the Sunol Station, 4.8 pounds per million gallons at the Irvington Pump Station, 10.9 pounds per million gallons at the Crystal Springs Station and 11.5 pounds per million gallons at the San Andreas Station.

A new portable chlorinator was purchased to provide additional emergency capacity for the chlorination stations.

FLUORIDATION:

Fluoridation of practically all water supplied from the Peninsula reservoirs was continuous throughout the year except for minor shutdowns for maintenance, repair and adjustment.

Adequate safety features are provided to prevent any possible overdosage and operations have proved the controls to be very effective.

During the past fiscal year, a total of 419,086 pounds of sodium silicofluoride was used to treat 41,267 million gallons of water. The overall dosage of 10.16 pounds per million gallons is equal to 0.74 parts per million of available fluoride. This amount, added to the 0.05 ppm of natural fluoride in the San Andreas supply and to the 0.02 parts per million in the Crystal Springs supply, gave an average total fluoride of 0.79 and 0.76 parts per million.

CORROSION CONTROL:

A total of 1,162,450 pounds of lime was used at the Rock River plant in treating 29,576 million gallons of water, giving a dosage of 39.3 pounds per million gallons. The total lime used is a decrease of 16.5% from the previous year.

ALGAE CONTROL:

A total of 64,400 pounds of copper sulfate was required during the year for the control of algae activity in our local storage and impounding reservoirs. This is a 43.5% decrease as compared to last year's usage and is 22.5% below the past ten year average.

COAGULATION:

A total of 2,212,880 pounds (199,000 gallons) of liquid alum was used as needed during the rainy season to reduce the turbidity of the water entering Lower Crystal Springs lake from San Andreas Creek.

WATER QUALITY:

The dissolved chemical content of the water served to consumers from the various sources of supply shows little variation when compared with the water served last year. Any change in chemical content of the water served from the Bay Crossing Lines is due primarily to differences in proportion of water entering from Calaveras and Hetch Hetchy and not from any changes in the chemical content of these sources.

TABLES AND CHARTS:

The following tables and charts are self-explanatory.

OPERATION OF CHLORINATION STATIONS

1957-1958

Location		Total Operating Time (months)	Chlorine Used (lbs.)	
vision	Station		Station Total	Division Total
ast Range H.W.S.	Tesla	11.9	489,149	489,149
ameda	Calaveras	6.2	104,161	
	Irvington Pump Sta.	1.3	6,163	
	Sunol Aqueduct	12.0	27,856	138,180
ninsula	Crystal Springs #1	12.0	142,213	
	Crystal Springs #2	12.0	147,068	
	San Andreas #1	12.0	11,230	
	San Andreas #3	12.0	161,978	462,489
ty stribution	University Mound			
	Line #1	7.3	4,893	
	Line #2	12.0	21,009	
	Inlet #1	5.5	3,204	
	College Hill	11.9	14,631	
	Lombard	12.0	1,101	
	Sunset	12.0	7,871	
	Merced Manor	7.1	2,134	54,843
			Total	1,144,661

1957-1958

OPERATION OF FLUORIDATION STATIONS

STATION	Days off *	Months Operated	Fluoride Used (lbs.)	Flow (m.g.)	Fluoride Added		Total Fluoride F ppm.
					Na_2SiF_6 Lbs./m.g.	F ppm	
C.S. #1	28	12.0	136,950	13,092.8	10.46	0.77	0.79
C.S. #2	22	12.0	146,078	13,357.9	10.94	0.80	0.82
S.A. #1	34	12.0	15,782	2,174.9	7.26	0.53	0.58
S.A. #2	47	12.0	120,276	12,641.6	9.51	0.70	0.75
		Total	419,086	41,267.2	10.16	0.74	

* Number of days machine shut down for major mechanical repair. In addition to listed shut downs, all stations were shut down for varying short periods of time due to power interruptions, improperly feeding material and for minor repairs and adjustments.

OPERATION OF LIME TREATMENT STATION

STATION	Months Operated	Lime Used (lbs.)	Flow (m.g.)	Lime Added	
				Lbs./m.g.	ppm.
Rock River (H.H.W.S.)	11.8	1,162,450	29,575.9	39.3	4.71

OPERATION OF ALUM TREATMENT STATION

STATION	Alum Used		Remarks
	Gallons	Lbs. (Dry)	
San Andreas Creek	199,000	1,068,107	Operated intermittently as needed during the months of December through May.

1957-1958

COPPER SULFATE

"$CuSO_4$"

RESERVOIR	DATE	AMOUNT $CuSO_4$ (lbs.)	STORAGE *(mg)	REASON FOR TREATMENT
Calaveras	5/19/58	32,300	31,660	Melosira
U.C.S.	6/23/58	10,250	7,350	Synedra and Dynobryon
L.C.S.	6/27/58	13,050	9,810	Staurastrum and Synedra
San Andreas	12/2/57	7,450	4,780	Asterionella
Stone Dam	7/31/57	50	8	Oscillaria
L. Merced South	7/27/57	1,300	1,262	Aphanizomenon
	Total	64,400	54.87 Billion Gallons	

$$\begin{array}{r} 114{,}000 \\ -64{,}400 \\ \hline 49{,}600 \end{array} \qquad \frac{49{,}600\text{x}100}{114{,}000} = 43.5$$

Percent decrease from the previous year.

$$\begin{array}{r} 83{,}090 \\ -64{,}400 \\ \hline 18{,}690 \end{array} \qquad \frac{18{,}690 \text{ x } 100}{83{,}090} = 22.5$$

Percent below the previous 10 year average.

*Storage at time of treatment.

WATER QUALITY

1957-1958

CRYSTAL SPRINGS LINES

Hardness	Max. 68	Min. 36	Av. 47.5 ppm (2.78 grains per gal.)
Chloride	12	5	7.5 ppm
Alkalinity	52	29	37.7 ppm
pH	7.6	7.0	7.24
Conductivity	186	94	123.8 Micromhos
Turbidity	20	0.5	3.40 ppm
Temperature	69	52	60.1° F.
Dissolved Oxygen	10.6	7.2	9.25 ppm (93% Saturation)

SAN ANDREAS LINES

Hardness	Max. 72	Min. 43	Av. 49.3 ppm (2.88 gpg)
Chloride	14	7	10.2 ppm
Alkalinity	46	37	41.5 ppm
pH	7.9	7.0	7.37
Conductivity	170	112	136.6 Micromhos
Turbidity	15	0.5	3.42 ppm
Temperature	68	50	59.2° F.
Dissolved Oxygen	11.2	8.7	10.11 ppm (99% Saturation)

BAY CROSSING LINES

Hardness	Max. 116	Min. 15	Av. 31.8 ppm (1.86 gpg)
Chloride	9	2	5.3 ppm
Alkalinity	103	11	28.0 ppm
pH	9.3	7.6	8.79
Conductivity	255	44	95.2 Micromhos
Turbidity	6	0.5	1.12 ppm
Temperature	62	49	55.6° F.
Dissolved Oxygen	11.8	8.3	10.07 ppm (95% Saturation)

MONTHLY SUMMARIES OF BACTERIOLOGICAL ANALYSES
SAMPLES COLLECTED FROM THE SAN FRANCISCO DISTRIBUTION SYSTEM
IN ACCORDANCE WITH CERTIFICATION REQUIREMENTS
1957-1958

Month	Coliform Tests					
	Samples Positive (3 or more tubes)			Tubes Positive (10 ml. portions)		
	No. of Samples	Number Positive	Per cent Positive	Number of Tubes	Tubes Positive	Per cent Positive
1957						
uly	414	10	2.4	2070	106	5.1
ugust	414	16	3.9	2070	124	6.0
eptember	385	41	10.6	1925	246	12.8
ctober	414	27	6.5	2070	145	7.0
ovember	377	11	2.9	1885	93	4.9
ecember	410	1	0.2	2050	12	0.6
1958						
anuary	413	0	0	2065	6	0.3
ebruary	368	9	2.4	1840	66	3.6
arch	409	43	10.5	2045	229	11.2
pril	378	18	4.8	1890	124	6.6
ay	422	28	6.6	2110	146	6.9
une	394	25	6.3	1970	156	7.9

BACTERIOLOGICAL ANALYSES

ANNUAL SUMMARY OF RESULTS

RAW WATERS - SOURCES AND RESERVOIRS*

1957-1958

Origin of Sample	Agar Count No. per ml.			Coliform Group 10 ml. Portions			Samples		
	Min.	Max.	Median	No. Exam.	No. Pos.	% Pos. Yr.	No. Exam.	No. Pos.	% Pos. Yr.
Moccasin Reservoir	1	5000	135	250	182	72.8	50	40	80
Tesla Portal	1	4000	2	245	11	4.5	49	2	4.1
Calaveras Reservoir	1	800	20	385	157	40.8	77	32	41.6
Sunol Filters	1	1500	3	255	204	80.0	51	44	86.3
Pleasanton Well Field	1	200	1	235	80	34.0	47	17	36.2
Pleasanton Town Well	1	1000	1	480	144	30.0	96	28	29.2
Upper C.S. Res.	1	500	25	210	148	70.5	42	29	69.0
Lower C.S. Res.	1	500	10	520	340	65.4	104	70	67.3
San Andreas Res.	1	200	6	495	307	62.0	99	66	66.7
Pilarcitos Res.	1	120	7	255	172	67.4	51	32	62.7
Stone Dam Res.	1	180	15	255	241	94.5	51	49	96.1
Lombard Reservoir	1	100	2	520	286	55.0	104	62	59.6
Univ. Md. Res. #1	1	80	1	325	209	64.3	65	41	63.1
Univ. Md. Res. #2	1	50	1	525	0	0	105	0	0
College Hill Res.	1	3000	15	515	261	50.7	103	53	51.4
Sunset Reservoir	1	5	1	525	6	1.1	105	1	1.0
Francisco Reservoir	1	4000	1	525	33	6.3	105	4	3.8
				M.P.N.					
				Min.	Max.	Median			
Lake Honda Res.**	1	140	10	2.0-	240+	240	26	24	92.3
Lake Merced N.	1	5000	30	6.0	700+	240	26	25	96.2
Lake Merced S.***	1	1500	25	4.5-	700+	62	67	65	97.0
Lake Merced Pump Sta.	1	3000	100	4.6	700+	700	67	67	100
Laguna Creek	50	3000	500	38	240+	240+	14	14	100
Alameda Creek	10	5000	200	38	240+	240+	45	45	100
San Antonio Creek	1	3000	80	38	240+	240+	15	15	100

* Includes all distribution reservoirs with chlorination facilities operating at the outlet.

** Standby purpose only.

*** Emergency standby source.

M.P.N. Most probable number per 100 ml.

BACTERIOLOGICAL ANALYSES
ANNUAL SUMMARY OF RESULTS
Treated Waters
1957-1958

Origin of Sample	Agar Count No. per ml.			Coliform Group 10 ml. Portions			Samples		
	Min.	Max.	Median	No. Exam.	No. Pos. Yr.	% Pos. Yr.	No. Exam.	No. Pos. *	% Pos. Yr.
Alameda East Portal	1	400	1	260	0	0	52	0	0
Calaveras Pipe Line	1	4000	1	150	1	0.7	30	0	0
Sunol Aqueduct	1	200	1	260	8	3.1	52	1	1.9
Irvington Pump Station	1	200	1	40	10	25.0	8	2	25
Sunol Town Supply	1	130	1	515	11	2.1	103	1	1.0
Bay Crossing Line #1	1	200	1	520	9	1.7	104	2	1.9
Bay Crossing Line #2	1	200	1	520	0	0	104	0	0
Bay Crossing Line #3	1	200	1	260	1	0.4	52	0	0
Irvington Venturi Meter	1	100	1	265	0	0	53	0	0
Palo Alto Pipe Line	1	300	1	780	11	1.4	156	0	0
Alameda Line, Belmont	1	1000	1	520	48	9.2	104	9	8.6
San Francisco Airport	1	11	1	525	57	10.9	105	11	10.5
Crystal Springs Line #1	1	100	1	1565	36	2.3	313	5	1.6
Crystal Springs Line #2	1	450	1	1565	74	4.7	313	14	4.5
San Andreas Line #1	1	150	1	1565	54	3.5	313	7	2.2
San Andreas Line #2	1	900	1	1565	94	6.0	313	14	4.5
San Andreas Line #3	1	120	3	520	25	4.8	104	3	2.9
Univ. Md. Inlet #1	1	200	1	520	27	5.2	104	3	2.9
Univ. Md. Inlet #2	1	200	1	520	12	2.3	104	2	1.9
Univ. Md. Outlet #1	1	5	1	525	4	0.8	105	1	1.0
Univ. Md. Outlet #2	1	50	1	525	0	0	105	0	0
Univ. Md. System #1	1	20	1	525	0	0	105	0	0
Univ. Md. System #2	1	5000	1	525	4	0.8	105	1	1.0
Univ. Md. System #3	1	20	1	530	54	10.2	106	11	10.4
Univ. Md. System #4	1	100	1	525	6	1.1	105	1	1.0
Univ. Md. System #5	1	70	1	525	6	1.1	105	1	1.0
Univ. Md. System #6	1	225	1	525	20	3.8	105	3	2.9
College Hill Trans. Sys.	1	14	1	520	17	3.3	104	3	2.9
College Hill Outlet	1	250	1	525	19	3.6	105	1	1.0
College Hill System #1	1	300	1	520	15	2.9	104	2	1.9
College Hill System #2	1	3	1	520	5	1.0	104	1	1.0
Sunset Supply Line	1	10	1	525	3	0.6	105	1	1.0
Sunset Trans. System	1	101	1	525	21	4.0	105	4	3.8
Sunset Inlet	1	70	1	525	5	1.0	105	0	0
Sunset Outlet	1	15	1	525	0	0	105	0	0
Sunset System #1	1	5000	1	670	81	12.1	134	13	9.7
Sunset System #2	1	14	1	525	35	6.7	105	3	2.9
Forest Hill System	1	250	1	515	50	9.7	103	6	5.8
Potrero Heights System	1	75	1	530	208	39.2	106	43	40.6
Lombard System	1	4	1	535	98	18.3	107	17	15.9
Merced Manor Reservoir	1	25	1	530	88	16.6	106	15	14.2
Merced Manor System	1	100	1	530	45	8.5	106	7	6.6
Stanford Heights Reservoir	1	10	1	530	66	12.4	106	7	6.6
Stanford Heights System #1	1	200	1	530	48	9.1	106	6	5.7
Stanford Heights System #2	1	3000	1	525	23	4.4	105	4	3.8
Sutro Reservoir	1	45	1	530	109	20.6	106	22	20.8
Sutro System #1	1	500	1	525	5	1.0	105	1	1.0
Sutro System #2	1	7	1	525	3	0.6	105	0	0
Wilde Avenue System	1	5000	1	525	36	6.9	105	8	7.6
Summit Reservoir	1	25	1	525	77	14.7	105	7	6.7
Summit System	1	50	1	95	12	12.6	19	0	0

*Number of samples having 3 or more tubes positive.

SAN FRANCISCO WATER DEPARTMENT

MINERAL ANALYSES

(results expressed in parts per million, except pH, conductivity)

SOURCE	CRYSTAL SPRINGS LINES	SAN ANDRES LINES
Date Sampled	June 12, 1957	June 12, 1957
Calcium (Ca)	11.1	13.8
Magnesium (Mg)	3.0	4.6
Sodium (Na)	5.5 (5.2)	8.0 (7.6)
Potassium (K)	0.3 ± 0.2	0.6 ± 0.2
Iron (total) (Fe^{+++})	0.04	0.02
Aluminum (total) (Al)	0.03	0.02
Manganese (Mn^{++++})	0.004	0.004
Bicarbonate (HCO_3)	38.5	52.5
" " (Calculated)	39.6	55.3
Carbonate (CO_3)	none	none
Chloride (Cl)	7.6	10.1
Sulphate (SO_4)	6.6	8.7
Fluoride (F)	0.9 (0.02)	1.0 (0.05)
Nitrate (NO_3)	0.17	0.08
Phosphate (PO_4)	0.01	0.01
Boron (B)	0.03	0.04
Silica (SiO_2)	5.4 (4.9)	4.8 (4.3)
Ammonia (NH_3)	0.01	0.01
Carbonaceous Matter	1.1	1.4
Dissolved Oxygen (O_2)	8.9	9.8
Hardness as $CaCO_3$	40.2	54.2
" " " (Calculated)	40.3	53.8
Alkalinity as $CaCO_3$	31.5	43.0
" " " (Calculated)	32.4	45.5
Carbonate Equivalent	18.9	25.8
" " (Calculated)	19.5	27.3
Total Solids (Residue at 105°C)	64.0	81.4
" " (Calculated)	61.0	79.1
Conductivity in μmhos 25°C	96	139
pH	7.3	7.6

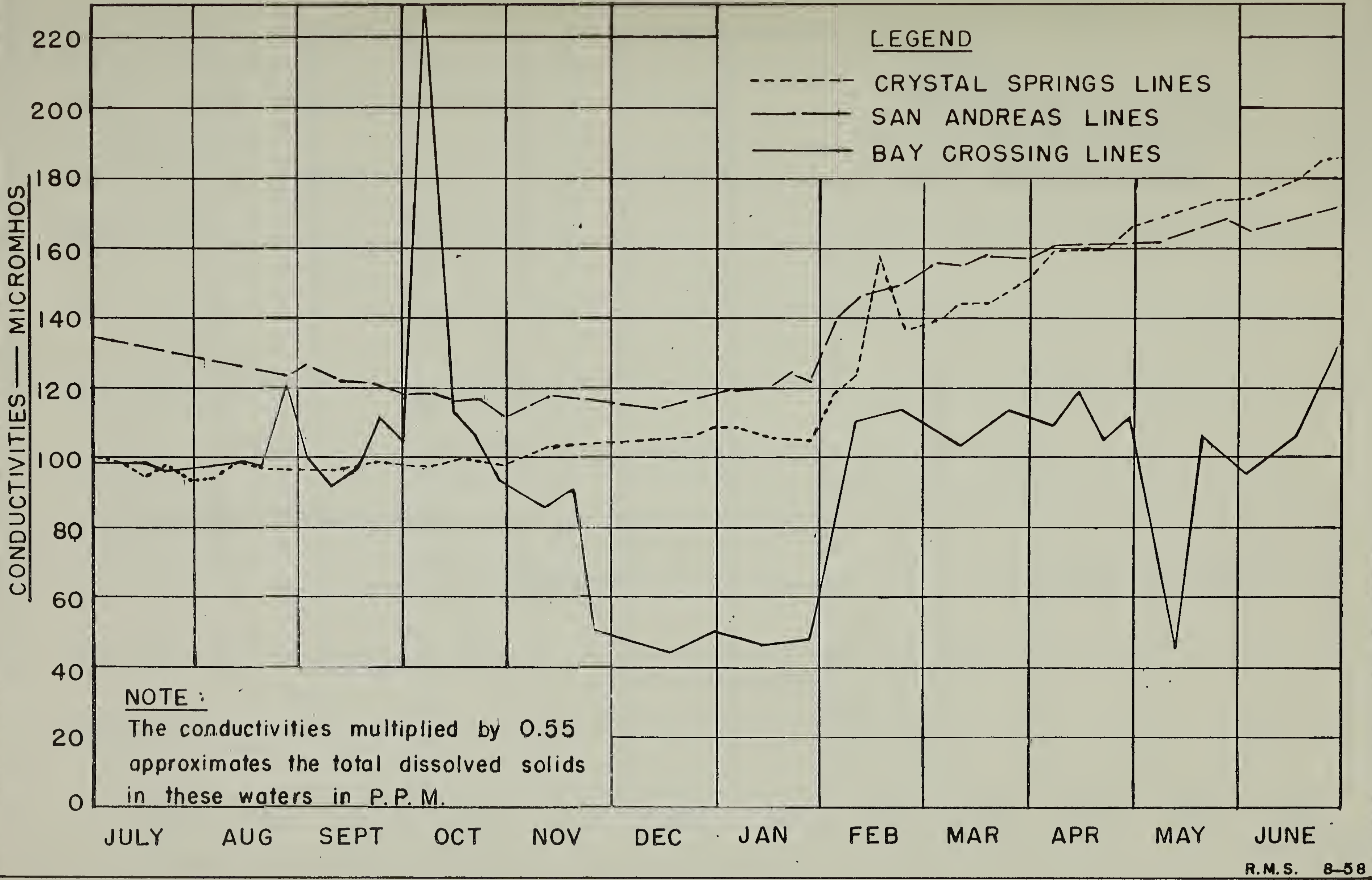
Column 1 supplies downtown, commercial, waterfront areas of San Francisco and Peninsula communities as far south as San Carlos.

Column 2 supplies residential areas of San Francisco.

Numerals in parenthesis are values before fluoridation.

ELECTRICAL CONDUCTIVITIES OF WATER DELIVERED TO CONSUMERS

1957—1958

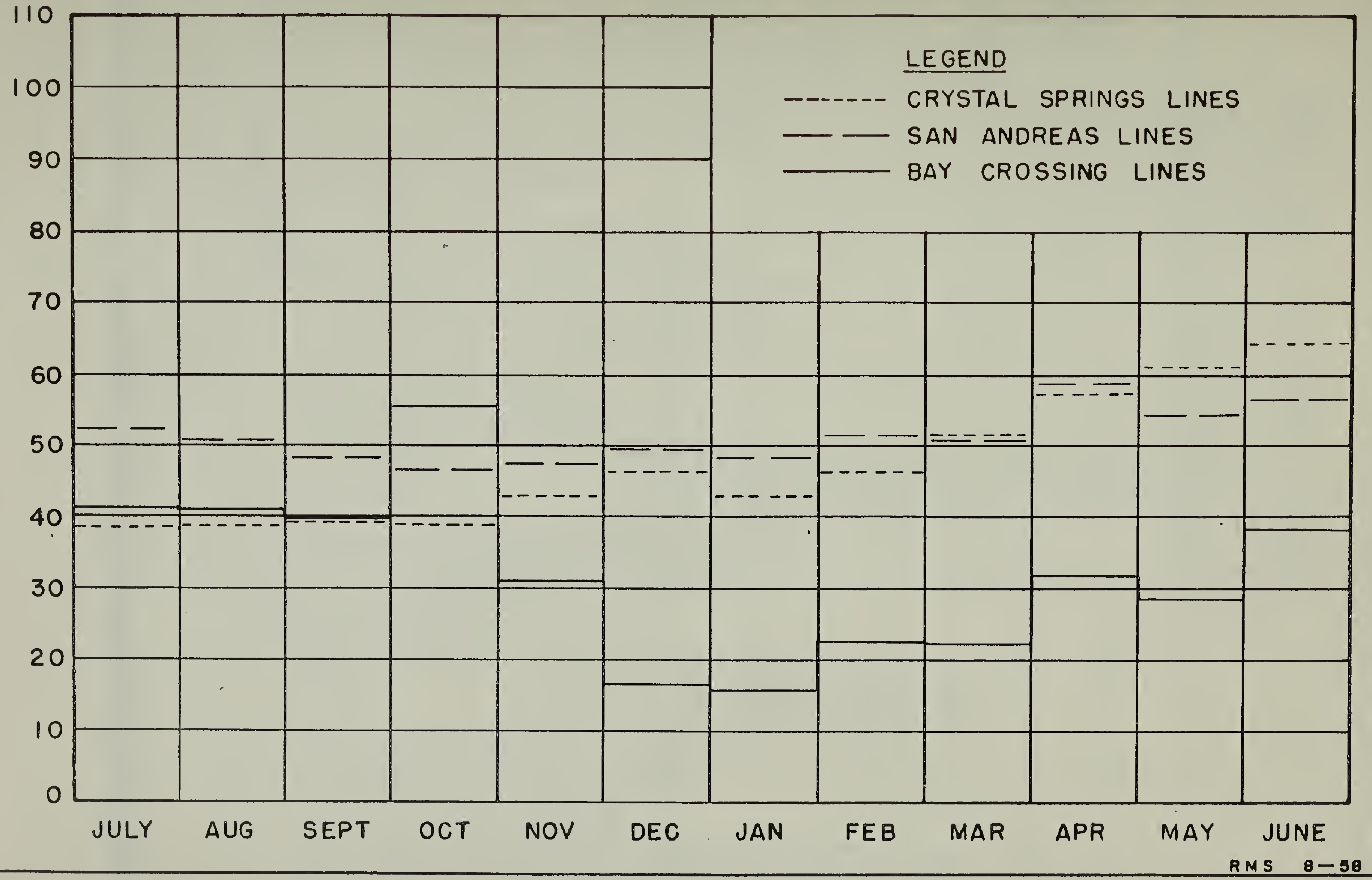


NOTE :
The conductivities multiplied by 0.55 approximates the total dissolved solids in these waters in P. P. M.

HARDNESS OF WATER

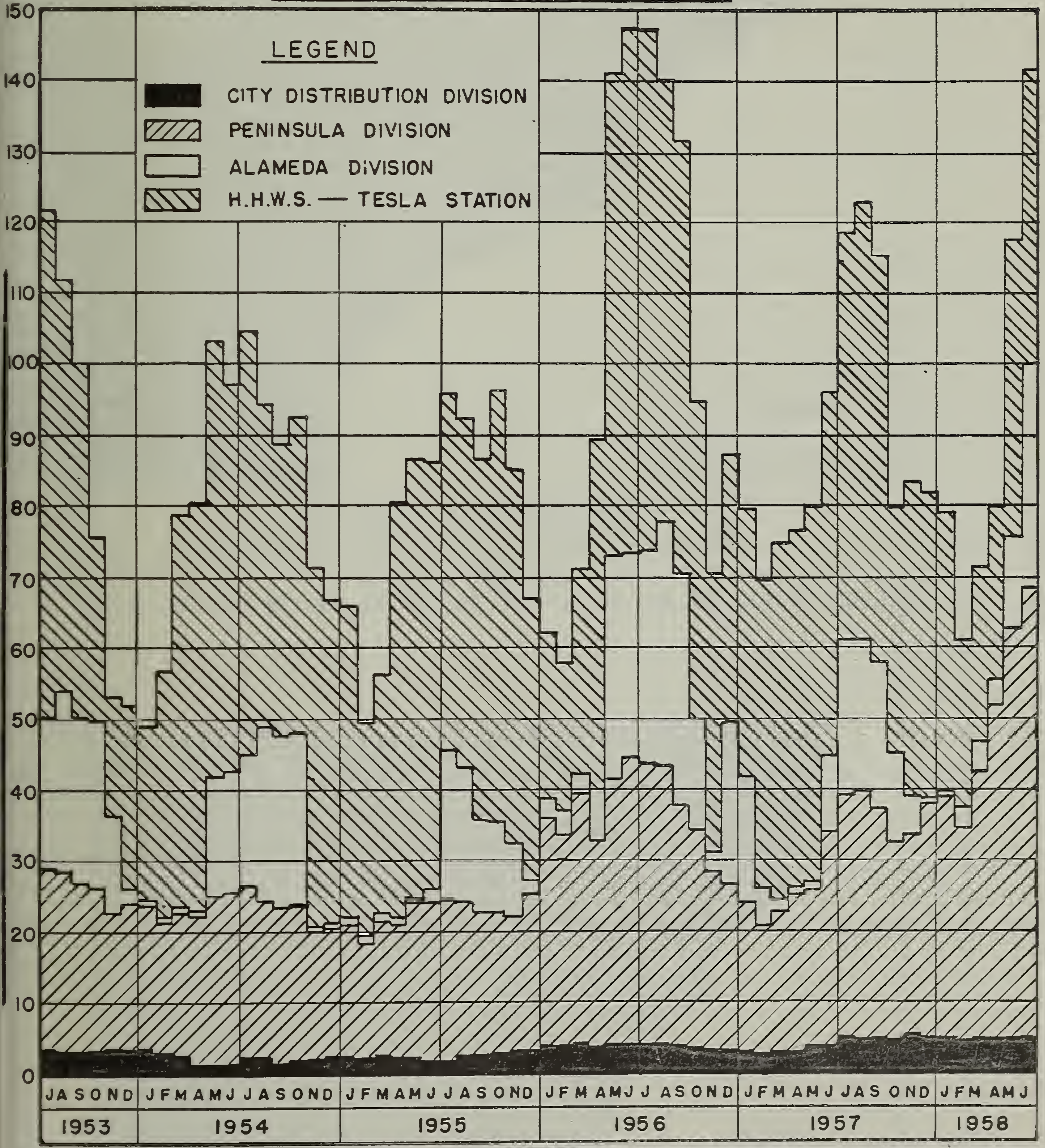
DELIVERED TO CONSUMERS 1957—1958

(MONTHLY AVERAGES—PARTS PER MILLION AS $CaCO_3$)



MONTHLY CHLORINE USAGE IN WATER SUPPLY SYSTEM

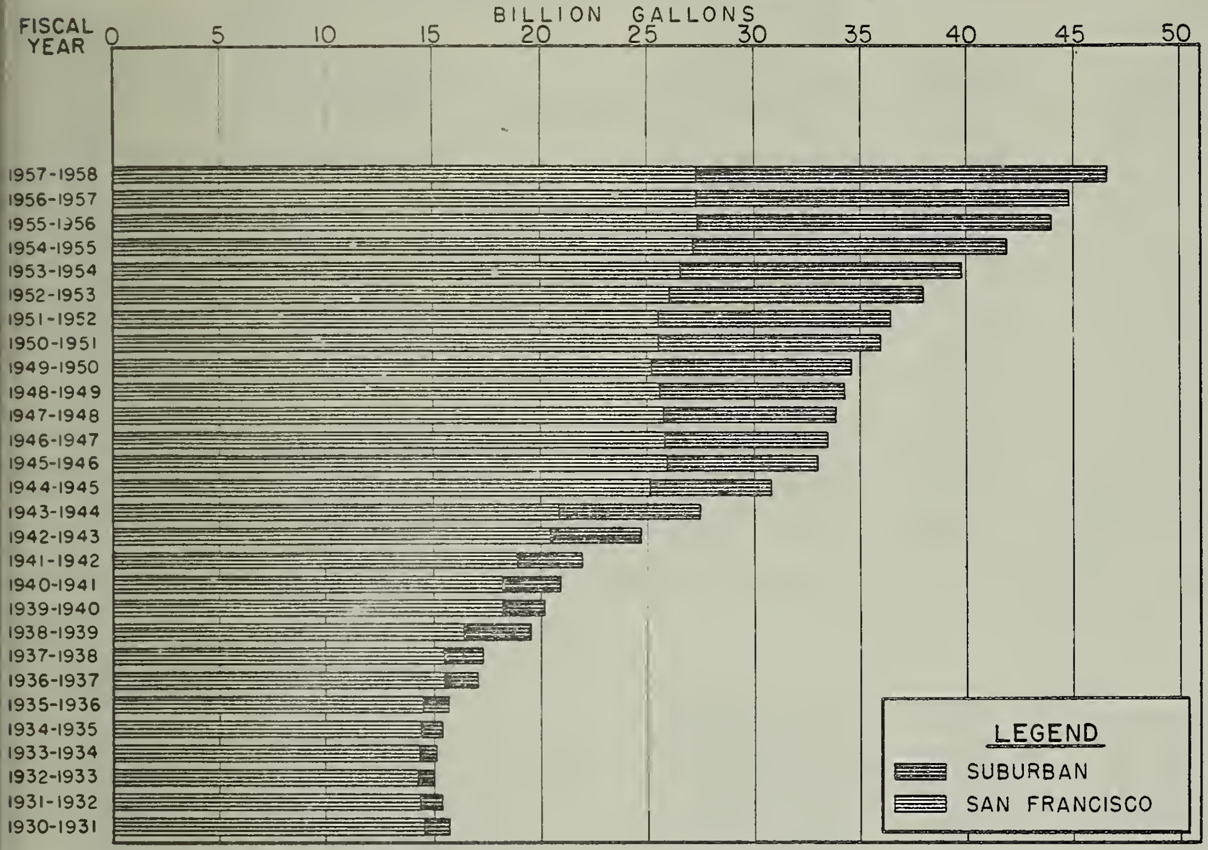
(PAST FIVE YEAR COMPARISON)



RMS 8-58

SAN FRANCISCO WATER DEPARTMENT

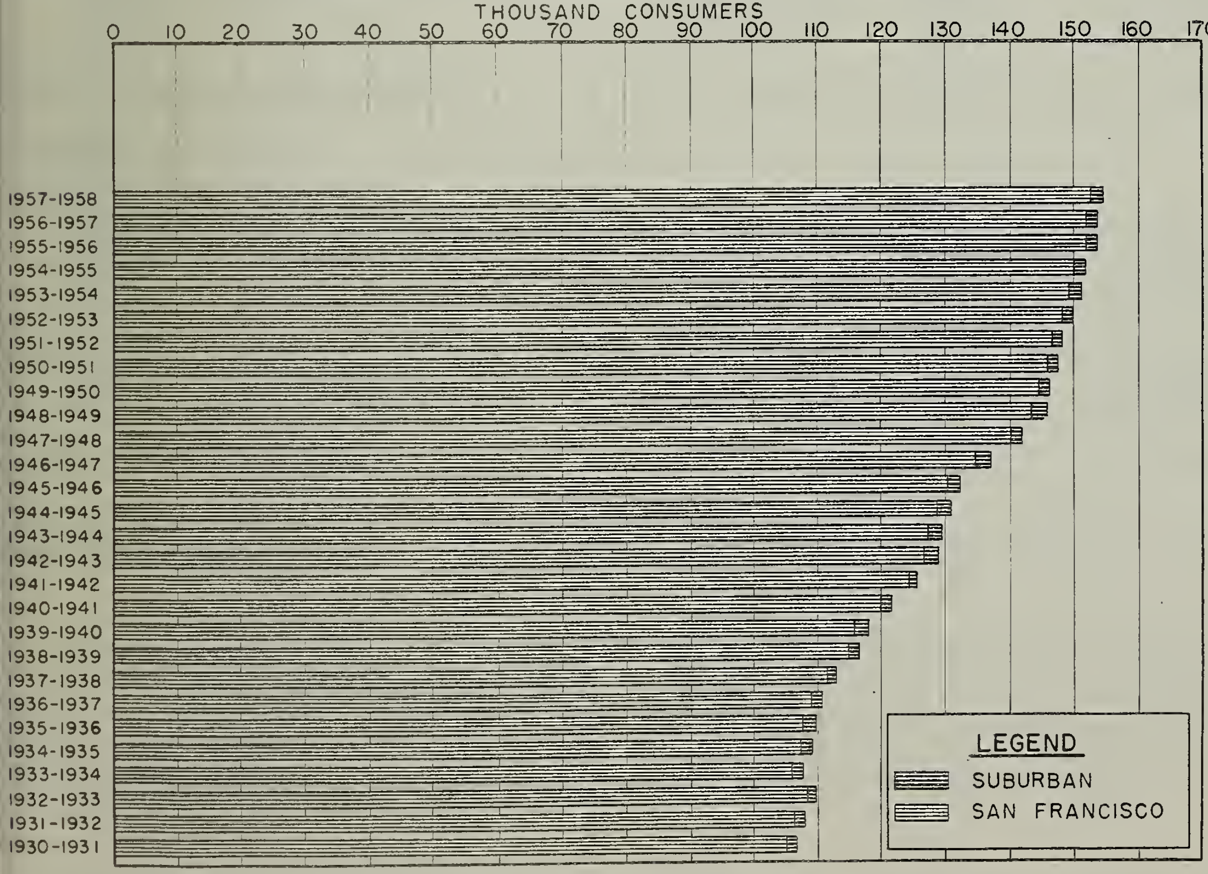
WATER DELIVERED AT CONSUMERS METERS



SAN FRANCISCO WATER DEPARTMENT

NUMBER OF ACTIVE CUSTOMER ACCOUNTS

AS OF JUNE 30



WATER SOLD IN SUBURBAN AREA
FISCAL YEAR 1957 - 1958

	CUBIC FEET TOTAL FOR YEAR	M.G.D.	CHARGE TOTAL FOR YEAR
SAN MATEO COUNTY			
MUNICIPAL UTILITIES			
City of Redwood City	240,798,400	4.93	$ 398,191.11
City of Burlingame	147,546,700	3.02	249,040.90
Town of Hillsborough	87,131,600	1.79	147,696.29
Belmont County Water Dist.	72,628,000	1.49	119,892.28
City of Millbrae	64,183,100	1.32	113,541.79
Ravenswood Water District	59,565,300	1.22	98,887.32
City of San Bruno	52,499,400	1.07	91,901.33
Menlo Park Mun. Water Dist.	48,963,900	1.00	82,135.06
No. Coast County Water Dist.	47,608,200	0.98	79,097.40
City of Daly City	1,661,100	0.03	4,365.32
Airport	29,299,500	0.60	55,821.02
Other Municipal Utilities	28,590,500	0.59	55,274.02
TOTAL MUNICIPAL UTILITIES	880,475,700	18.04	$1,495,843.84
Other Water Sold	1,030,205,200	21.11	1,746,083.18
TOTAL SAN MATEO COUNTY	1,910,680,900	39.15	$3,241,927.02
SANTA CLARA COUNTY			
MUNICIPAL UTILITIES			
City of Palo Alto	127,894,300	2.62	$ 215,406.37
City of Sunnyvale	53,760,800	1.10	92,853.77
Milpitas County Water Dist.	37,219,500	0.76	67,504.76
City of Mountain View	32,986,000	0.68	60,848.30
Purissima Hills Co. Water Dis.	2,473,200	0.05	5,794.80
Oak Hill County Water Co.	498,900	0.01	1,373.49
TOTAL MUNICIPAL UTILITIES	254,832,700	5.22	$ 443,781.49
Moffet Field	54,618,900	1.12	85,008.47
Other Water Sold	5,292,300	0.11	14,730.50
TOTAL SANTA CLARA COUNTY	314,743,900	6.45	$ 543,520.46
ALAMEDA COUNTY			
MUNICIPAL UTILITIES			
Hayward Mun. Water System	259,705,700	5.32	$ 419,774.20
Alameda County Water Dist.	50,179,800	1.03	94,382.96
City of Pleasanton	8,639,200	0.18	15,175.05
TOTAL MUNICIPAL UTILITIES	318,524,700	6.53	$ 529,332.21
Other Water Sold	12,074,300	0.25	30,897.60
TOTAL ALAMEDA COUNTY	330,599,000	6.78	$ 560,229.81
TOTAL WATER SOLD SUBURBAN AREA	2,556,023,800	52.38	$4,345,677.29

These quantities are measured by the consumers meters and at least 10% must be added to them in order to determine the quantities of water required to be produced and released for consumption in ach case. This is true for all quantities of water shown in this Distribution and Consumption" section of the Annual Report.

DISTRIBUTION AND CONSUMPTION

GENERAL:

In addition to the City of San Francisco the Department distributes water in Garden Village, Northern San Mateo County and in Sunol, Alameda County, the latter being an obligation of the Spring Valley Water Company assumed by the City. All other suburban customers buy water delivered to them at our transmission mains and distribution is through consumer owned facilities.

The consumption figures given in "Production and Transmission" are the quantities delivered for consumption as measured by Venturi meters or other means in the transmission facilities. This section, "Distribution and Consumption", gives the quantities measured by the consumers' meters which quantities are the basis for payment. Another difference is the area and number of consumers considered as being in the City of San Francisco. Due to the location of transmission line meters, the consumption of a large portion of the inhabited area of the northerly 47 square miles of San Mateo County is included in the City consumption quantities in the "Production and Transmission" section.

The Sunol distribution system, in the Alameda Division, caused no unusual maintenance or operation problems. A total of 18.7 million gallons were delivered to the Sunol System for distribution.

In the City of San Francisco, there were no "no water" complaints due to the inadequacy of the system.

RESERVOIRS AND TANKS:

The north basin of University Mound Reservoir was emptied and cleaned in the latter part of this fiscal year. This is the first time it has been emptied since the 1906 earthquake. There were from six inches to three feet of silt in the reservoir, the greatest depth being in the northerly half of the basin. The original supply to the reservoir at the southeast end was sealed off and the basin now "floats" on the system. All water entering or leaving the reservoir must now pass through the original outlet structure. The original inlet structure, reconstructed three times, was also abandoned, the 44 inch transmission main being reconstructed around it.

Sutro Reservoir is still showing above normal leakage.

Lombard Reservoir was cleaned in the fall of 1957. There is a crack through the embankment and lining at the northwest corner of the basin. This necessitated reducing the storage from 16½ feet to 14 feet in depth.

A part of the Francisco Street Reservoir site has been declared surplus property.

FEEDER MAINS:

Some of the feeder mains are in poor condition due to soil corrosion and will need to be cement lined or rehabilitated by some other method.

Several cast iron feeder mains, 12 and 16 inches in diameter were laid for the improvement of the distribution system.

PIPE SYSTEM:

Routine extensions were made of 4, 6 and 8 inch cast iron mains during the year.

The program of replacing 4 inch and smaller mains was continued, particularly in areas where street reconstruction and repavement were undertaken by the Department of Public Works.

Pipe tables showing lengths of various sized pipe laid, removed or abandoned and totals in the system, together with valve record, are to be found in the Appendix.

PUMP STATIONS:

All pumping stations in the City, which were in use, operated without any serious mishaps. Alemany Pumps were not used during the year.

A new and larger hydropneumatic pumping station to replace the existing small Palo Alto station was under construction and was nearly completed by the end of the fiscal year. When placed in operation, this station will permit abandonment of the Twin Peaks tank and pumping station as well as the existing Palo Alto pump station.

SERVICES AND METERS:

Twenty nine new suburban services were installed during the year ranging in size from 5/8" to 8". Five services were enlarged and 35 were discontinued. The net change was a reduction of six suburban services leaving a total of 698 as of June 30, 1958. On that date there were 1,000 meters in service in the suburban area including those temporarily shutoff.

In the San Francisco District there were 1,516 orders for new services to be installed during the fiscal year and, in addition, there were 38 new automatic sprinkler installations requested. On June 30, 1958 there were 155,196 metered live services not including 669 automatic sprinkler installations. At the end of the year there were 157,771 meters in service in San Francisco, including those temporarily shutoff.

Active accounts in the suburban area decreased from 666 to 641 during the year, a decrease of 25. In San Francisco active accounts increased from 152,653 on June 30, 1957 to 153,516 on June 30, 1958, a gain of 863. For the entire system, the net increase was 838 or 0.5%.

The Consumers' Servicemen made some 35,329 calls during the year. While most of these calls were for the purpose of turning on or shutting off water and reading meters for closing bills, all at customers' requests, a great many calls were made in response to complaints.

All meter readings continue to be audited and, where any of the readings appear to be at variance with the usage normally expected, billing is usually held up pending an inspection by a Water Service Inspector. Some 25,743 bills were handled in this manner. This procedure continues to find favor with our customers who have larger than normal usage, for they appreciate our interest in checking on the larger usage and, where leaks are found, they can make immediate repairs, thereby arresting further excess billing. Altogether, 35,329 inspections of varying degrees were made, including those requested by customers who called in concerning 9,730 bills which they considered to be abnormal.

The number of domestic services installed during the fiscal year are shown below:

TABLE "A"

TOTAL SERVICES INSTALLED

NEW AND RENEWED

SAN FRANCISCO

Size Service	1954-55	1955-56	1956-57	1957-58
3/4"	1811	1133	1535	1790
1"	749	993	643	770
1½"	139	137	123	192
2"	57	61	72	75
3"	16	16	20	16
4"	20	8	7	8
6"	15	3	3	4
8"	11	0	2	2
12"	0	1	0	0
Total	2818	2352	2405	2857
% of 3/4"	64.3	48.2	63.8	62.7
% of 1"	26.6	42.2	26.7	27.0

TABLE "A"(Cont'd)

SUBURBAN

Meter Size	1954-55	1955-56	1956-57	1957-58
5/8"	9	12	16	9
3/4"	3	3	2	-
1"	7	6	7	4
1½"	5	0	1	3
2"	17	10	6	6
Larger than 2"	8	10	9	4
TOTAL	49	41	41	26

In addition to the above, five existing services in the suburban area were enlarged and one reduced in size.

The number of meters set during the fiscal year is shown below:

TABLE "B"

METERS SET

SAN FRANCISCO

Meter Size	1954-55	1955-56	1956-57	1957-58
5/8"	1405	1492	1068	1165
3/4"	60	32	198	262
1"	137	159	146	136
1½"	69	66	67	89
2"	178	175	208	227
3"	-	-	-	-
4"	-	1	-	-
6"	4	-	-	-
8"	-	-	-	-
TOTAL	1853	1925	1687	1879
% 5/8"	75.8	77.5	63.3	62.0
% 3/4"	3.2	1.6	11.7	14.0
% 1"	7.4	8.4	8.7	7.2
% 1½"	3.7	3.4	4.0	4.7
% 2"	9.6	9.1	12.3	12.1

TABLE "B" (Cont'd)

SUBURBAN

Meter Size	1954-55	1955-56	1956-57	1957-58
5/8"	9	12	16	9
3/4"	3	3	2	-
1"	7	6	7	5
1½"	5	-	1	3
2"	43	28	6	17
4"	2	1	1	1
6"	9	4	6	5
8"	-	9	7	3
TOTAL	78	63	46	43

SERVICES AND METERS:

The number of meters changed during the fiscal year for all causes but mainly "no goes" are, as follows:

TABLE "C"

METER SET CHANGES

Meter Size	1954-55	1955-56	1956-57	1957-58
5/8"	3631	3141	3302	3353
3/4"	157	156	108	73
1"	102	112	111	89
1½"	77	65	48	65
2"	106	96	111	108
3"	-	-	-	-
4"	-	-	-	-
6"	-	-	-	-
8"	-	-	-	-
TOTAL	4073	3570	3680	3688
% 5/8"	89.1	88.0	89.7	90.9
% 3/4"	3.8	4.4	2.9	2.0
% 1"	2.5	3.1	3.0	2.4

The following table shows the number of meters brought to the shop and not replaced:

TABLE "D"

METERS HOME

Meter Size	1954-55	1955-56	1956-57	1957-58
5/8"	672	553	792	955
3/4"	30	23	26	26
1"	57	43	39	43
1½"	21	19	30	28
2"	83	109	84	85
3"	-	-	2	-
4"	2	3	-	1
6"	3	3	-	-
8"	-	1	-	-
TOTAL	868	754	973	1138
% 5/8"	77.4	73.3	81.4	83.9
% 3/4"	3.5	3.0	2.7	2.3
% 1"	6.6	5.7	4.0	3.8

The number of Fire Sprinkler Services installed during the year is shown in Table 18 in the Appendix.

The number of abandoned domestic services for all causes are shown in Table "F":

TABLE "F"

ABANDONED DOMESTIC SERVICES

SAN FRANCISCO

Size Meter	1954-55	1955-56	1956-57	1957-58
3/4"	1606	916	1050	1317
1"	69	85	269	369
1½"	19	12	42	88
2"	5	11	17	23
3"	1	-	-	2
4"	1	-	-	-
6"	-	-	-	-
8"	-	-	-	-
TOTAL	1701	1024	1378	1799
% 3/4"	94.4	89.4	76.2	73.2
% 1"	4.1	8.3	19.5	20.5

MAINTENANCE AND OPERATION:

The Crystal Springs No. 1 pipeline, laid in 1885, is in very poor condition. The original capacity of some 24 million gallons per day has dropped to about 9.0 million gallons per day.

Many leaks are developing in the Baden-Merced pipeline between Eucalyptus and Winston Drives, apparently due to electrolytic action.

A bad break in the Department's 24-inch main at 7th and Howard Streets occurred on July 4, 1957. Some thirty valves had to be closed to isolate the three large mains crossing this inter-section. This main was laid about the year 1885 and subsequent raising of the street left the pipe more than 10 feet below present grade. The pipe which was ruptured was in excellent condition. This break resulted in 39 damage claims and is probably the largest amount to be filed against the Department for a single occurance.

The employees at the Corporation Yard office at 639 Bryant Street prepared 830 requisitions during this fiscal year and processed the purchase orders; issued 9,820 paving orders, which required 5,539 street opening permit requests; processed 1,447 revolving fund transactions; coded and posted to payrolls daily, the time for some 130 per diem employees; prepared reports for all trucks and equipment. Cost data was maintained on all work orders, recoverable charges and contracts awarded to the San Francisco Water Department. There are some 2,700 different items carried in stock, which must be kept in balance at all times.

The services and facilities of the shops at 639 Bryant Street are available to all Divisions of the Water Department. During this fiscal year the Machine Shop turned out 700 standard gate, tapping and detector check valves ranging in size from 2-inch to 16-inch; 145 various sized leak bands; 3,250 pipe lugs for attaching fittings to cast iron pipes, 4-inch to 16-inch in size; special copper connections for 3/4-inch and 1-inch tubing; 1,500 special copper tube fittings and 175 sets of steel bands for tying back bell or plain joint pipes.

Special bodies for all the Divisions' trucks were made in the welding shop as well as pipe specials, headers for meter batteries and miscellaneous items. The normal field welding in connection with leak repairs and installation made by the Water Department was performed as usual.

In addition to the above, preventive maintenance is carried on for twenty two electric pumping stations. The shop also maintains special tools, equipment and rolling stock used by the Department, except for minor maintenance and adjustments, which can be performed in the suburban divisions.

The meter shop made repairs to some 4,300 meters while testing 6,403. Out of the 5,694 meters issued, 3,735 were installed as replacements for existing meters while the balance were set in new or enlarged services.

In addition to the above repairs were made and/or work done on 10,700 meters in the field. Uncovering and/or cleaning out the meter box and/or replacing the glass was required on 7,124 meters; 2,347 required replacement of meter covers and the remaining work consisted of correction of spindle leaks, replacement of dials, etc.

COMPLAINTS:

Tables No. 20, 21 and 22 in the Appendix give a comparison of the different types of complaints and inquiries.

Service calls are made as soon as possible after receipt of a complaint which results in good public relations. Many calls are preliminary and further calls are required by the Special Service Inspector, who made some 3,000 calls during the year.

There were 1,871 inspections made to investigate complaints of poor supply. These inspections included removal of the meter to measure the rate of flow. (Table No. 22 in Appendix). It was found that only in a few cases the distribution system was inadequate, the principal cause being corrosion of the service and/or house pipes. In many cases it was determined that the service and/or the meter was too small.

The programs whereby small distribution mains are being replaced with larger mains; the installation of new feeder mains and the changing of distribution areas from one reservoir to another will, on completion, remove that source of "poor supply" complaints. This work is set forth in the "Additions, Betterments and Replacements" section.

Inadequate service pipes are being renewed as funds become available. During this fiscal year there were 1,799 service pipes abandoned and renewed. The policy of renewing services with galvanized wrought iron instead of galvanized steel pipe, as previously used, is being continued.

Large bills continue to be a major source of common complaint. Dirty water is the principal water quality complaint.

The Department has continued its courtesy policy of giving aid to our consumer cities in their investigation of water quality complaints.

Registration through the consumers meters in the suburban area, excluding Municipal Non-pay accounts, totaled 2,556.0 million cubic feet (19,118.9 million gallons), equivalent to an average of 52.4 million gallons per day. This is an increase over the previous year's 2,375.1 million cubic feet of 7.6%. In San Francisco the meter registration was 3,674.0 million cubic feet (27,481.5 million gallons) or an average of 75.3 million gallons per day. This is an increase over the previous year's 3,619.6 million cubic feet or 1.5%. The records of metered deliveries for 1957-58 differ from previous years in that the quantity of water delivered to City and County of San Francisco under Non-paying Municipal Accounts outside the City are included in Suburban Area. For this year there were 29,235,100 cubic feet in that classification. This quantity is, for comparison only, included above in San Francisco meter registration and not in Suburban.

In 1956-57 San Francisco consumption was 60.4% and Suburban 39.6% of the total while this year the corresponding figures are 59.0% and 41.0%.

The entire system consumption increased from 5,994.7 million cubic feet for 1956-57 to 6,230.0 million cubic feet for 1957-58, an increase of 235.3 million cubic feet (1,760.0 million gallons) or 4.8 million gallons per day.

Included in the foregoing was water delivered to Municipal Utilities and Water Districts in the Suburban area, taking water for resale in an amount of 1,453.8 million cubic feet (10,874.4 million gallons), or 29.8 million gallons per day. Water delivered to private utilities in the same area totaled 979.6 million cubic feet (7,327.4 million gallons) or 20.1 million gallons per day.

A new table, "Deliveries and Consumption from San Francisco Water Department Sources fiscal year 1957-58" has been included in this year's Annual Report.

This table shows the amount of water withdrawn by consumers (metered delivery) together with the quantities provided from sources for those deliveries (consumption). The difference between them is the system losses and are explained in the footnotes of the table.

DELIVERIES AND CONSUMPTION
FROM
SAN FRANCISCO WATER DEPARTMENT SOURCES
FISCAL YEAR 1957-58

No.	Area, Utility or District	Metered Delivery cu.ft.	Metered Delivery m.g.d.	Consumption(1) m.g.d.	Consumption(1) Ac.Ft.
	San Mateo County				
1	Bayshore City(Diamond Util.Dist.)	14,056,200	0.29	0.32	355
2	Brisbane County Water Dist.	10,287,300	0.21	0.23	260
3	Daly City (Westlake)	1,661,100	0.03	0.03	42
4	Colma	24,413,100	0.50	0.55	617
5	South San Francisco	174,971,700	3.59	3.95	4,418
6	North Coast County Water Dist.	47,608,200	0.98	1.08	1,202
7	Coastside County Water Dist.	2,455,800	0.05	0.06	62
8	San Bruno	52,499,400	1.07	1.18	1,325
9	S.F. International Airport Water Sold-29,299,500 cu.ft. S.F. Use - 4,353,200 cu.ft.(2)	33,652,700	0.69	0.76	851
10	Millbrae	64,183,100	1.31	1.44	1,621
11	Burlingame	147,546,700	3.02	3.32	3,727
12	Hillsborough	87,131,600	1.79	1.97	2,200
13	Crystal Springs Golf Club(2)	7,656,600	0.16	0.18	193
14	San Mateo	378,750,100	7.76	8.54	9,564
15	Belmont County Water Dist.	72,628,000	1.49	1.64	1,834
16	San Carlos	93,461,000	1.92	2.11	2,360
17	Redwood City	240,798,400	4.93	5.42	6,081
	Redwood City(Calif.Wtr.Serv.Co.)	35,624,600	0.73	0.80	899
	Cordilleras Mutual Water	216,200	0.01	0.01	5
	Palomar Park Co. Water Dist.	1,575,000	0.03	0.03	40
18	Woodside	73,038,600	1.50	1.65	1,844
19	To Bear Gulch Reservoir	22,415,500	0.46	0.51	566
20	Menlo Park Muni. Water Dist.	48,963,900	1.00	1.10	1,236
	Menlo Park(Calif.Wtr.Serv.Co.)	158,064,900	3.24	3.56	3,992

DELIVERIES AND CONSUMPTION FROM
SAN FRANCISCO WATER DEPARTMENT SOURCES
FISCAL YEAR 1957-58(Cont'd)

o.	Area, Utility or District	Metered Delivery cu.ft.	Metered Delivery m.g.d.	Consumption(1) m.g.d.	Consumption(1) Ac.Ft.
1	Ravenswood Water Dist.	59,565,300	1.22	1.34	1,505
2	City of San Francisco				
	County Jail (2)	22,022,700	0.45	0.49	556
	Public Welfare (2)	2,859,200	0.06	0.07	72
	Other water delivered in San Mateo County	69,465,700	1.42	1.56	1,754
	Total for San Mateo County	1,947,572,600	39.91	43.90	49,181
	Santa Clara County				
3	Palo Alto	127,894,300	2.62	2.88	3,230
4	Oak Hill County Water Dist.	498,900	0.01	0.01	13
	Purissima Hills Co. Wtr. Dist.	2,473,200	0.05	0.05	62
5	Mountain View	32,986,000	0.68	0.75	833
6	Moffett Field	54,618,900	1.12	1.23	1,379
7	Sunnyvale	53,760,800	1.10	1.21	1,358
8	Agnew State Hospital	204,500	0.01	0.01	5
9	Milpitas Co. Water Dist.	37,219,500	0.76	0.84	940
0	Other water delivered in Santa Clara County	5,087,800	0.10	0.11	128
	Total water for Santa Clara Co.	314,743,900	6.45	7.09	7,948
	Alameda County				
1	Alameda County Water Dist.	50,179,800	1.03	1.13	1,268
2	Newark (various consumers)	4,632,400	0.09	0.10	117
3	Hayward	259,705,700	5.32	5.85	6,558
4	Sunol				
	Domestic Supply	1,512,100	0.03	0.03	38
	Water Dept. Lands (2)	19,254,100	0.39	0.43	486
	" " " (2)(3)Est'd.	2,470,000	0.05	0.06	67
5	Vallecitos Valley	2,449,300	0.05	0.06	67
5	Castlewood Club	-0-	-0-	-0-	-0-

DELIVERIES AND CONSUMPTION FROM SAN FRANCISCO WATER DEPARTMENT SOURCES FISCAL YEAR 1957-58(Cont'd)

No.	Area, Utility or District	Metered Delivery		Consumption(1)	
		cu.ft.	m.g.d.	m.g.d.	Ac.Ft.
37	City of Pleasanton				
	Water Sold (3)	8,639,200	0.18	0.20	218
	Other Wtr. Deliveries(2)(3)	14,982,200	0.31	0.34	378
38	Pleasanton Well Field Agricultural Use (2) (3) Estimated	39,800,000	0.82	0.90	1,005
39	Other water delivered in Alameda County	3,480,500	0.07	0.08	89
	Total for Alameda County	407,105,300	8.34	9.18	10,281
	Total for San Mateo, Santa Clara and Alameda Counties	42.0% 2,669,421,800	54.70	60.17	67,410
	San Francisco County				
	San Francisco (2)	57.3% 3,644,730,400	74.69	81.83	92,038
	From Lake Merced (2)(3)	12,898,400	0.27	0.30	326
	" Golden Gate Park Wells (2)(3) Estimated	0.7% 40,100,000	0.82	0.90	1,013
	Total for San Francisco County	58.0% 3,697,728,800	75.78	83.03	93,377
	Total for San Francisco Water Department System	100% 6,367,150,600	47,625.2 130.48	52,480 143.20	160,787

Yellow Sheet
51,297.0

Notes for tabulations on Pages 43, 44 and 45.

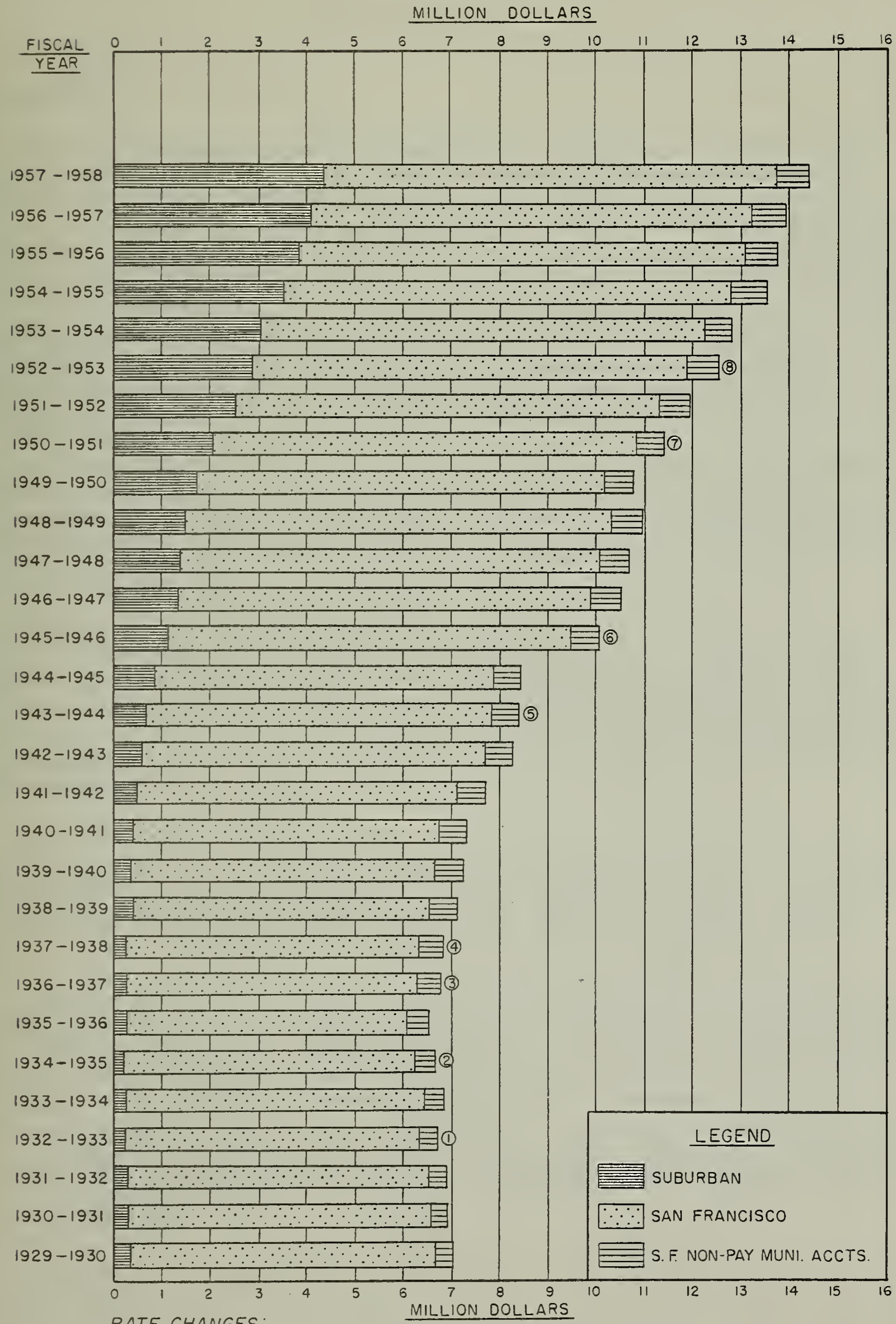
(1) Consumption is system input. The difference between "consumption" and "metered delivery" consists of sytem losses and uses including leakage, losses due to pipe breaks, under-registration of meters, water used at hydrants that is not billed, blowoff water, water used for Water Department operating purposes, evaporation from distribution reservoirs and other similar losses.

(2) This water is not included in the tabulation "Water Sold in Suburban Area Fiscal Year 1957-58" of the Water Department's 1957-58 Annual Report, as water sold.

(3) This water is not included in the 140.5 m.g.d. system input reported in the Water Department's 1957-58 Annual Report.

SAN FRANCISCO WATER DEPARTMENT

WATER SALES



RATE CHANGES:

① OCT. 26, 1932 75% REDUCTION ON FIRE SPRINKLER SERVICE CHARGES.
② DEC 1, 1934 10% REDUCTION ON ALL RATES EXCEPT HYDRANTS AND SPRINKLERS.
③ JAN. 1, 1937 7% & 48% REDUCTION ON INCREASED USAGE AT INDUSTRIAL & WHOLESALE RATES
④ JAN. 1, 1938 7% & 48% REDUCTION APPLIED TO ALL " " " " " " .
⑤ DEC. 1, 1943 15% REDUCTION TO ALL CONSUMERS WITHIN CITY & COUNTY OF SAN FRANCISCO.
⑥ SEPT. 1, 1945 PRECEDING 15% REDUCTION REMOVED FOR CONSUMERS WITHIN CITY & COUNTY OF SAN FRANCISCO. 15% INCREASE FOR SUBURBAN CONSUMERS
⑦ FEB. 1, 1951 INCREASE FOR FOURTH BLOCK WATER TO 15 CENTS FOR CITY & 16 CENTS FOR SUBURBAN; 10% DISCOUNT ON FOURTH BLOCK IF WATER WERE NOT TAKEN FOR RESALE.
⑧ JULY 1, 1952 BEGAN CHARGING REGULAR RATES TO 14 CONTRACT REDUCED RATES CONSUMERS.

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REVENUE

WATER SALES:

Sales of water to our customers during the fiscal year 1957-58 grossed $14,463,163. Our policy of allowing credits on customers' bills, where leakage occurred in house piping or fixtures, whereby the customer promptly made the necessary repairs, resulted in a customers' savings of $25,533 so that Net Sales amounted to $14,437,630. This is an increase over the previous year of $443,215 or 3.17%. Net Sales in San Francisco, including $685,627 to other Municipal Departments in lieu of taxes, amounted to $10,039,690 or 69.5% of the total. Suburban Net Sales accounted for $4,397,940 or 30.5% of the total, including $52,959 to other City of San Francisco Departments in lieu of taxes.

Included in the above was $2,468,958 derived from sale of water to Municipal Utilities and Water Districts in the Suburban Area. This is an increase of $235,251. Revenue from sale of water to private utilities amounted to $1,628,268, an increase of $48,705.

Customers' Accounts Receivable showed a balance of $1,024,477 due the Department on June 30, 1958. Again, this shows that some 30% of our billing is paid before the end of the month. Collections for the year were $13,657,958, an increase of $495,996. There were 947,056 bills issued during the year of which 890,051 were for bi-monthly accounts and 57,005 for monthly accounts.

Some 17,699 closing bills were issued during the year. Uncollectible bills totaled $9,091, being only 0.06% of Sales. The Suspense Balance, consisting of "Closed" accounts awaiting collection or write-off, was $14,167 on June 30, 1958. Back-billing of the "contract" accounts remains at $95,818.07.

Billing at regular rates continued, during the fiscal year, on the remaining former "contract" accounts. Total amount billed during the year was $60,412.29 in excess of that which would have been billed under the "contract" rates. In the six years since regular billing began on the "contract" accounts, charges at regular rates have produced $337,091.72 in "additional" revenue. These accounts, on past experience, average approximately $4,000 per year in combined "additional" revenue over that formerly received.

OTHER INCOME:

Revenue from rentals, royalties and taxes paid by tenants amounted to $272,664.92 for the year which is $7,804.08 more than the previous year. Rentals from Agricultural leases increased $11,286.77 and flat rate rentals increased $25,127.77. The largest drop in this classification was in royalties and percentages, a decrease of $29,044.11, while taxes paid by tenants showed an increase of $433.65.

Gross return of $68,551.22 from the walnut orchards is an increase of $1,125.75 as compared to last year. The net cash received, $8,633.74, was $3,831.62 more than for 1956-57.

Interest on bank balances increased over the previous year from $23,154.60 to $55,469.18.

The increased income from sale or abandonment of fixed assets accounts for the increase in the "miscellaneous" category of "Other Income". The balance is from smaller items including rentals from Department owned cottages that are occupied by employees, amounting to $7,000.

The total gross income from the Agricultural Division for this year of $341,216.14 was $8,929.83 more than the preceding year and was the highest for any year in the history of the Agricultural Division. Expenses of $100,121.66 leaves a net income of $241,094.48, which is $1,726.35 less than the preceding year.

CLAIMS

Claims filed by the Department during the year against others, principally street work contractors who damaged our facilities, amounted to some 105 in number for a total of $28,182.15. Including the balance pending at the beginning of the year, 158 claims were processed against others for a total sum of $49,318.97. Of these, payment in full was received on 89 claims and 4 were cancelled, totalling $1,706.19. Amounts received totaled $18,596.80 out of $20,302.99 or 91.6% recovery. Claims against others pending on June 30, 1958 were 65 in number for a total amount of $29,015.98.

During the year, 191 claims in the total amount of $1,014,500.18 were filed against the Department. Claims pending at the beginning of the year numbered 156 for a total of $600,208.39 so that some 369 claims in the total amount of $1,614,708.57 were processed. One hundred forty five claims totalling $185,551.71 were settled for $13,337.74 so that the total saving to the Department on claims settled was $172,213.97. On June 30, 1958, 224 claims in the sum of $1,429,156.86 remained. Of these, however, 153 claims totalling $325,491.08 were in connection with "contract" accounts and are in litigation, so that 71 claims in the total amount of $1,103,665.78 remained as a result of the Department's operations.

On July 4, 1957 a main break at 7th and Howard Streets resulted in probably the largest amount of damage claims to be filed against the Department from a single cause. Claims filed as a result of this break totaled 39 in number for an amount of $763,256.34.

In addition to the foregoing, the policy of investigating dangerous conditions of the Department's facilities and instances of damage where no formal claims were filed, was continued. The former is in line with the policy of accident prevention and the latter for protection in case formal claims are subsequently made.

ADDITIONS, BETTERMENTS AND REPLACEMENTS

Plans and specifications were prepared for 47 formal and 6 informal Water Department contracts for a total estimated construction cost of $3,442,000. Engineering supervision and inspection services were provided for $2,001,000 of contract work actually completed during the year. Of the 47 formal contracts for which plans and specifications were prepared during the fiscal year 1957-58, 25 were for water main extensions.

Three of these extensions were awarded to the Water Department in an amount totaling $85,552.00 and were completed at a cost of $70,081.23 or $15,470.77 less than the bid price. A fourth contract, for conversion of large valves for power operation, was awarded to the Water Department for $12,571.76 and completed at a cost of $5,804.72. The Water Department bids these jobs to assure a reasonable cost.

A survey of proposed capital improvements to the water system was made, in connection with budgetary and city planning purposes, for the period beginning July 1, 1959 and ending June 30, 1965. Water Department requirements for this period were estimated at some $83,400,000 worth of improvements having varying degrees of urgency. A number of the more essential projects programmed to start in that time and for which funds are needed in whole or in part include the following projects:

Project	Total Estimated Cost July 1, 1959 to June 30, 1965
San Antonio Dam Project	$ 7,000,000
Crystal Springs Pipeline No. 3	9,200,000
Bay Division Pipeline No. 4	24,300,000
Balboa Reservoir Development - two basins	5,650,000
Operation and Maintenance headquarters	2,945,000
Bay Division to Crystal Springs Pipelines-connection	8,740,000
Distribution Reservoirs and Tanks-rebuild and improve	3,600,000
	$61,435,000

On August 22, 1957 the Hillsborough Tunnel was completed and on March 5, 1958 the last section of Sunset Pipeline was completed. These were the last contracts on another transmission main from Crystal Springs and through the San Andreas Branch from San Andreas Reservoir to Sunset Reservoir and suburban consumers along the way. The total length of these lines, constructed under nine contracts, is 21.2 miles and the contract cost was over $7,000,000. Crystal Springs water may be boosted to Sunset or Sutro reservoir at Lake Merced Pumps which are cut into this pipeline near Stanley Drive. San

Andreas water can flow directly into Sunset Reservoir or be boosted to Sutro Reservoir by Lake Merced Pumps. From Crystal Springs Dam to Bellevue and Pepper Avenues in Hillsborough, the line is 78 and 79 inches in diameter with the 5,100 foot Hillsborough Tunnel being 90 inches in diameter. The balance of the Sunset Pipeline, including San Andreas Branch, is nominally 60 inches in diameter. The large sized pipe and tunnel were constructed to combine two pipelines into one through a difficult construction area.

The lining and roofing of the south basin of the Sunset Reservoir was 7% complete at the end of the year. This $2,154,000 contract will complete the south basin and will add 87 million gallons storage in San Francisco.

Completion of Balboa Reservoir is deferred due to lack of funds. In the interim period, to prevent serious erosion damage to these excavated basins, they are being paved with asphaltic concrete which will be used as a subgrade for the final lining. The north basin will be used for student parking until final lining and roofing contracts are awarded. Storage capacity of this reservoir will be about 150 million gallons.

The brick chimney at the old Clarendon Pump Station, 17th and Pond Streets, San Francisco, was razed to the building roof during this year. The March 1957 earthquake left the chimney in bad condition and to prevent possible damage by its toppling over, it was removed. This station was built in 1896 and was taken out of service before the City purchased the Spring Valley Water Company properties.

Additional feeder and distribution mains are needed in some of the distribution districts in the City to provide an adequate supply of water during a hot and dry period of several days duration. Presently scheduled for construction next year are two feeder mains and five distribution mains. In addition to these there are some seven feeder and four distribution mains presently programmed for construction. These are in addition to the other water main categories.

Some of the existing feeder mains will be transferred from one district to another for better distribution when the above feeder mains have been laid.

Electrolysis surveys and tests were continued throughout the year on Bay Division Pipeline No. 1, Crystal Springs No. 2 and San Andreas Pipeline No. 2 and cross-connections. Readings and tests by means of coupons were made at existing stations.

Three additional cathodic protection systems were installed during the year, two by contract and the third by force account. All were on Bay Division Pipeline No. 1 in Newark, Irvington and Menlo Park.

FORMAL CONTRACTS:

1. Additions to City Pipe System:

In all contracts involving the laying of cast iron or transite pipe or the installation of services, the Contractor is required to obtain the pipe and fittings from the Water Department. The cost of this material, of connections made by the Department's forces, and of engineering and inspection are included in the following stated contract costs. In cases where the Water Department acts as the Contractor, the cost given is the actual cost of the completed work.

Extensions and replacements to the Department's distribution grid system are made under contract, the Department furnishing all necessary pipe, fittings and services material. The value of these items, and the engineering and inspection costs are set up in the contract bid sheets in a manner so that the "bid total" includes the cost of furnished items, engineering and inspection, and the summation represents the total cost to the Department for the facility. On most of this class of work the Water Department submits a bid and does the work if its bid is the lowest of those received.

Contract No. 744--This contract was cancelled.

Contract No. 778--For installing 97 services and the laying of 874 feet of 4-inch, 1,496 feet of 6-inch and 2,928 feet of 8-inch cast iron mains in Upper Market Street area. The contract was awarded to the San Francisco Water Department on October 29, 1956 and completed on November 12, 1957 at a cost of $45,858.75.

Contract No. 790--For installing 2 services and the laying of 18 feet of 6-inch and 588 feet of 8-inch cast iron mains in McKinnon Avenue between Barneveld Avenue and a point 175 feet east of Upton Street. The contract was awarded to Michael Murphy, Jr. on March 12, 1957 and completed on July 2, 1957 at a cost of $4,191.61.

Contract No. 791--For installing 7 services and the laying of 32 feet of 6-inch and 4,190 feet of 12-inch cast iron mains in Ellis, Steiner, Webster and Grove Streets. The contract was awarded to Michael Murphy, Jr. on October 8, 1957 and completed on March 25, 1958 at a cost of $62,017.85.

Contract No. 796--For installing 30 services and the laying of 2,822 feet of 6-inch cast iron mains in Geary Boulevard between Masonic Avenue and Arguello Boulevard. The contract was awarded to Associated Pipeline, Inc. on September 3, 1957 and was completed on November 12, 1957 at a cost of $20,550.06.

Contract No. 797--For installing 21 services and the laying of 1,133 feet of 6-inch cast iron mains in Holladay Avenue and in Valmar Terrace. The contract was awarded to Louis L. Cima on June 4, 1957 and was completed on September 11, 1957 at a cost of $6,873.99.

Contract No. 798--For installing 11 services and the laying of 950 feet of 6-inch cast iron main in Point Lobos Avenue between Forty Fifth and Forty Eighth Avenues. The Contract was awarded to the San Francisco Water Department on August 13, 1957 and completed on October 18, 1957 at a cost of $7,316.40.

Contract No. 799--For installing 79 services and the laying of 2,041 feet of 6-inch cast iron mains in Anderson, Cross, Venus and Wayland Streets and in Quesada Avenue. The contract was awarded to the San Francisco Water Department on August 13, 1957 and completed on January 9, 1958 at a cost of $16,906.08.

Contract No. 800--For installing 44 services and the laying of 1,160 feet of 6-inch cast iron mains in Somerset, Boylston and Gaven Streets. The contract was awarded to E. J. Treacy on August 13, 1957 and completed on September 30, 1957 at a cost of $8,708.16.

Contract No. 801--For the laying of 243 feet of 6-inch cast iron main in Polk Street between Beach and North Point Streets. The contract was awarded to Fred T. Fairey on July 22, 1957 and completed on April 7, 1958 at a cost of $2,857.36.

Contract No. 807--For the installation of 7 services and the laying of 58 feet of 6-inch and 1,177 feet of 8-inch cast iron mains in Felton Street and Carroll Avenue. The contract was awarded to Fred T. Fairey on August 13, 1957 and completed on September 13, 1957 at a cost of $8,058.77.

Contract No. 810--For the laying of 1,770 feet of 12-inch and 42 feet of 8-inch cast iron mains in Pacific Avenue, Washington, Jones and Green Streets. The contract was awarded to Michael Murphy, Jr. on September 24, 1957 and completed on December 4, 1957 at a cost of $33,085.67.

Contract No. 811--This contract was cancelled.

Contract No. 813--For the installation of 54 services and the laying of 236 feet of 4-inch and 1,082 feet of 6-inch cast iron mains in Geneva Avenue and Louisburg Street (replacement of 1½ inch and 2 inch mains). The contract was awarded to Fred T. Fairey on October 15, 1957 and completed on December 6, 1957 at a cost of $11,166.86.

Contract No. 814--For the installation of 147 services and the laying of 391 feet of 6-inch, 2,692 feet of 8-inch, 2,308 feet of 12-inch and 1,425 feet of 16-inch cast iron mains in Forest Knolls Subdivision No. 1. The contract was awarded to Fred T. Fairey on August 20, 1957 and was completed on November 14, 1957 at a cost of $65,403.86.

Contract No. 816--For the installation of 11 services and the laying of 389 feet of 8-inch cast iron mains in Harvard Street between Felton and Burrows Streets. The contract was awarded to E.J. and Harold T. Treacy, Joint Venture, on October 15, 1957 and was completed on April 28, 1958 at a cost of $3,467.02.

Contract No. 818--For the installation of services and the laying of 4-inch and 8-inch cast iron mains in Marietta Park Subdivision. The contract was awarded to Fred T. Fairey on November 5, 1957 at an estimated bid price of $15,538.00. On June 30, 1958 the work was 78% completed.

Contract No. 819--For the installation of 60 services and the laying of 263 feet of 4-inch, 1,127 feet of 6-inch and 1,800 feet of 8-inch cast iron mains in Midtown Terrace No. 6. The contract was awarded to Bernard Gayman on December 10, 1957 and completed on March 10, 1958 at a cost of $21,156.64.

Contract No. 821--For the installation of 2 services and the laying of 1,701 feet of 12-inch cast iron main in Dolores Street from 21st Street to 24th Street. The contract was awarded to Bernard Gayman on February 4, 1958 and work was completed on May 7, 1958 at a cost of $21,156.28.

Contract No. 822--For the installation of 19 services and the laying of 41 feet of 4-inch and 1,650 feet of 6-inch cast iron mains in Claremont Blvd. and in Chenery Street. The contract was awarded to Michael Murphy, Jr. on February 18, 1958 and work was completed on April 8, 1958 at a cost of $12,692.01.

Contract No. 823--For the laying of 8 feet of 6-inch, and 2,694 feet of 12-inch cast iron mains in O'Farrell and Gough Streets. The contract was awarded to Fred T. Fairey on May 6, 1958 at an estimated bid price of $41,316.80. The work under this contract was 92% completed as of June 30, 1958.

Contract No. 824--For the installation of 24 services and the laying of 702 feet of 6-inch cast iron main in Prague St. from Excelsior to Brazil Avenues. The contract was awarded to Associated Pipeline,Inc. on February 18, 1958 and completed on June 10, 1958 at a cost of $5,782.17.

Contract No. 825--For the laying of 1,144 feet of 4-inch, 1,922 feet of 8-inch and 1,096 feet of 8-inch cast iron mains in Crocker Amazon Tract. The contract was awarded to Michael Murphy, Jr. on March 4, 1958 and was completed on May 9, 1958 at a cost of $27,053.25.

Contract No. 828--For the installation of 36 services and the laying of 175 feet of 2-inch, 192 feet of 4-inch and 377 feet of 6-inch cast iron mains in Greenwich and Child Streets and in Telegraph Place. The contract was awarded to Fred T. Fairey on March 25, 1958 and was completed on May 13, 1958 at a cost of $6,960.81.

Contract No. 829--For the installation of 8 services and the laying of 373 feet of 6-inch cast iron mains in Delta Street from Harkness Avenue to Hamilton Street. The contract was awarded to Michael Murphy, Jr. on April 1, 1958 and completed on May 9, 1958 at a cost of $2,539.64.

Contract No. 830--For the installation of 132 services and the laying of 266 feet of 4-inch, 399 feet of 6-inch and 3,068 feet of 8-inch cast iron mains in Ellis, O'Farrell and 24th Streets. The contract was awarded to Associated Pipeline, Inc. on April 15, 1958 at an estimated bid price of $44,565.20. The work under this contract was 51% completed as of June 30, 1958.

Contract No. 836--For the laying of 27 feet of 6-inch and 5,938 feet of 12-inch cast iron mains in 8th and 9th Avenues from California Street to Fulton Street and in California Street from 23rd to 29th Avenues. The contract was awarded to Michael Murphy, Jr. on April 22, 1958 at an estimated bid price of $73,608.50 and the work under this contract was 73% completed as of June 30, 1958.

Contract No. 839--For the laying of 4-inch and 6-inch cast iron mains in Portola Drive from San Lorenzo Way to West Portal Avenue. The contract was awarded to Fred T. Fairey on May 6, 1958 at an estimated bid price of $24,595.50. Work on this contract was not started as of June 30, 1958.

Contract No. 842--For the laying of 4-inch and 6-inch cast iron mains in Caesar Heights. The contract was awarded to Fred T. Fairey on May 20, 1958 at an estimated bid price of $8,770.50. Work on this contract was not started as of June 30, 1958.

2. Addition to Supply and Transmission Facilities:

Contract No. 734--For the construction of the 5,118 foot long by 90-inch diameter Hillsborough Tunnel as a part of Crystal Springs and Sunset Pipelines. At the ends of the tunnel there were laid 74 feet of 91-inch and 7 feet of 79-inch cement lined pipe. The contract was awarded to Peter Kiewit Sons' Company on October 24, 1955 and completed on August 22, 1957 at a cost of $1,347,589.86.

Contract No. 736A--For the conversion from manual to power operation of ten valves on transmission pipelines in San Mateo, Santa Clara and Alameda Counties. The contract was awarded to the San Francisco Water Department on June 11, 1957 and completed January 17, 1958 at a cost of $5,804.72.

Contract No. 736B--For the electrical part of the above mentioned conversion from manual to power operation of ten valves on transmission pipelines in San Mateo, Santa Clara and Alameda Counties. The contract was awarded to Electrical Maintenance & Service Co. on February 11, 1958 and completed on May 5, 1958 at a cost of $5,180.30.

Contract No. 775--For the lining of 4,657 feet of the Pilarcitos redwood feeder flume with prefabricated asphalt panels. The contract was awarded to Cortelyou and Cole on July 9, 1957 and completed on September 9, 1957 at a cost of $14,172.52.

Contract No. 781--For the construction of Crystal Springs and Sunset Pipelines from near Hillsborough Bridge to Burlingame, San Mateo County. The contract was awarded to McGuire and Hester on March 19, 1957 and was completed on March 5, 1958 at a cost of $831,381.11.

Contract No. 786--For the replacing of existing electrical switch board and associated electrical work at the Crystal Springs Pumping Station in San Mateo County. The contract was awarded to the Electrical Maintenance & Service Co. on May 28, 1957 and completed on August 22, 1957 at a cost of $9,094.62.

Contract No. 809--For the cement lining of 710 feet of the 44-inch Pilarcitos Aqueduct. The contract was awarded to Pipe Linings, Inc. on August 6, 1957 and completed on November 13, 1957 at a cost of $8,114.03.

Contract No. 812--For repairing the flood damage to the downstream bucket and apron slab of the Ambursen type Upper Alameda Creek Diversion Dam. The contract was awarded to the L.F. d'Artenay Construction Company on September 10, 1957 and completed on November 1, 1957 at a cost of $16,581.43.

Contract No. 837--For the drilling of a new well and the rehabilitation of an existing well at Pleasanton Town Wells in Alameda County. The contract was awarded to Western Well Drilling Co., Ltd. on May 13, 1958 at an estimated bid price of $15,820.29 and the work on this contract was 23% completed as of June 30,1958.

Contract No. 843--For the replacement of a portion of the University Mound 44-inch pipeline at Islais Creek with new 48-inch steel pipe. The contract was awarded to McGuire and Hester on June 24, 1958 at an estimated bid price of $39,341.00. Work on this contract had not started as of June 30, 1958.

3. Miscellaneous Contracts:

Contract No. 704--For the excavation and embankment of both basins for Balboa Reservoir. The contract was awarded to Piombo Construction Co. on August 20, 1956 and completed on July 2, 1957 at a cost of $329,508.28.

Contract No. 742--For the excavation and embankment of the south basin for Sunset Reservoir. The contract was awarded to Piombo Construction Co. on February 14, 1956 and completed on August 16, 1957 at a cost of $737,672.90.

Contract No. 793--For the installation of Slimline lighting fixtures in rooms 401, 403 and 701 at the 425 Mason Street building. The contract was awarded to the Decker Electric Company on June 18, 1957 and completed on July 30, 1957 at a cost of $2,048.00.

Contract No. 802--For the repavement of street and sidewalk openings made by the Department for installation or repair work during the fiscal year 1957-58. The contract was awarded to the Pacific Pavement Company, Ltd., on June 18, 1957 and terminated on June 30, 1958 at a cost of $124,221.38. Pavement over trenches opened by contractors performing work for the Department is not included herein as they are required to provide their own repaving.

Contract No. 803--For painting the stairways, corridors, a part of the 7th and all of the 8th floor in the building at 425 Mason St. The contract was awarded to D. Zelinsky and Sons on June 25, 1957 and work was completed on August 22, 1957 at a cost of $2,193.00.

Contract No. 804--For the razing of Clarendon Pump Station Chimney. The contract was awarded to Madsen and Son Construction Company on July 22, 1957 and completed on September 12, 1957 at a cost of $3,600.00.

Contract No. 805--For the painting of a part of the Corporation Yard Office at 639 Bryant Street. The contract was awarded to the Atlas Painting Company on June 25, 1957 and completed on August 21, 1957 at a cost of $1,578.00.

Contract No. 806--For the construction of reinforced concrete lining and roof of Sunset Reservoir-South Basin. The contract was awarded to Fruin-Colnon Contracting Co. on April 22, 1958 at an estimated bid price of $2,154,324.40 and work under this contract was approximately 7% complete as of June 30, 1958.

Contract No. 808--For the replacing of the Palo Alto Avenue Pumping Station. The contract was awarded to H. E. Rahlmann Co. on February 4, 1948 at an estimated bid price of $21,421.30. The work under this contract was approximately 78% completed as of June 30, 1958.

Contract No. 815--For the construction of sidewalk and a chain link fence at Balboa Reservoir site. The contract was awarded to Madsen and Son Construction Company on September 10, 1957 and completed on November 11, 1957 at a cost of $21,532.32.

Contract No. 817--For grading, draining and asphaltic concrete lining, a part of the Balboa Reservoir Development. The contract was awarded to the Fay Improvement Company on October 8, 1957 at an estimated bid price of $244,572.50. The work under this contract was 30% completed as of June 30, 1958.

Contract No. 826--For the installation of a Cathodic Protection System on B.D. P/L No. 1 near Willow Road, San Mateo County. The contract was awarded to Ets-Hokin and Galvan on March 11, 1958 and completed on May 14, 1958 at a cost of $2,468.00.

Contract No. 827--For a Chain Link Fence at Casey Quarry and Cherry Creek Sites in Hillsborough, San Mateo County. The contract was awarded to Colorado Fuel and Iron Corp. on March 4, 1958 and completed April 14, 1958 at a cost of $2,142.04.

Contract No. 834--For the construction of a Chemical Storehouse at Calaveras Reservoir in Alameda County. The contract was awarded to Roy Madsen on May 20, 1958 at an estimated bid price of $10,874.00 and 2% of the work under this contract was completed as of June 30, 1958.

LANDS, LEASES AND PERMITS

LAND TRANSACTIONS:

At the beginning of the year 62,790.886 acres were owned by the Department; sales of 54.016 acres and no purchases during this year leaves 62,736.870 acres as of June 30, 1958.

Parcels sold were:

Crystal Springs Filtration Plant Site(exchange with San Mateo Co.)decrease the acreage	2.944
Parcel 237A-Bay Division Pipeline No. 3 Santa Clara County	0.461
Portion of Parcel 55-Lake Merced Lands San Francisco County	21.388
Portion of Parcel 13-Presidio Heights Tank-S.F. Co.	.105
" " " 28-Millbrae, San Mateo Co.	1.128
" " " 368B-Bay Division P/L No. 3-San Mateo Co.	.087
" " " 370- " " " " 3- " " "	.003
" " " 26-South San Francisco " " "	27.69
" " " 39- " " " " " "	.21
Total Sales and net decrease in acres:	54.016

Out of the above acreage 37,020 acres are under lease or revenue producing permits. A breakdown of the leases follows:

CATTLE LEASES:

There were 21 grazing leases and 23 grazing revocable permits covering 31,096 acres in effect at the end of the fiscal year. These leases run from 5 to 7 years, usually commencing on November first.

Six of the cattle leases operate under the "sliding scale" rental formula. The rental is determined from the official Federal-State Market News Service official reports based on the price of beef in a particular classification during July for the following November 1 billing date. The balance of these leases are on a cash rental basis.

The highest possible rental is obtained depending on the condition of the land. The last survey conducted by the Department of Agriculture indicates that rentals paid for the use of Water Department grazing land was 60% higher than rentals paid for use of adjacent privately owned land. Rentals for the Department grazing lands run from $3.00 to $6.50 per acre depending on the amount of available feed.

The tenants continued the conservation program by developing springs and stock dams, reseeding, weed and rodent control and the practice of controlled grazing.

SHARE CROP AND FARMING LEASES:

The principal activity in this field is the raising of oat, barley and wheat hay and barley and oat grain of which the City receives a fourth share under that type of lease.

Under the percentage type of lease the tenant raises strawberries, cucumbers, string beans and sugar beets. Rental yields from strawberries range from $100.00 to $150.00 per acre; row crop vegetables produce an average of $65.00 per acre while hay and grain average about $20.00 per acre.

A higher rental is charged on a straight cash per acre basis where no share or percentage is involved. In all cases, a close supervision is maintained in the rotation of crops, erosion, land improvement and control of weeds and rodents.

There are approximately 115 agricultural leases and permits in effect.

ROYALTIES AND PERCENTAGE LEASES:

The Skyline Rock Quarry income, on a royalty basis, was $31,815.05 this fiscal year as compared to some $42,000 the preceding year.

The Crystal Springs Golf Course income, on a percentage basis, was $26,210.84.

COMMERCIAL LEASES AND PERMITS:

Over 85 commercial leases and permits cover parking areas, restaurant and other types of commercial enterprises in addition to the rock quarry and golf course uses of the land.

During this year a lessee who provided the building and paid $80 per month for ground rental defaulted and the City acquired the building. The new tenant pays $260 per month rental for this City property. It is located at Broadway and California Drive in Burlingame and is valued at $20,000.

The Stanford Research Institute pays the highest fee ($14,000 per year) of any of the 90 fee permittees. The property covered by the permit is near Calaveras Reservoir. There are also some 450 revocable non-revenue permits in effect.

WALNUT ORCHARD:

Gross income dropped from $67,425 in 1956-57 to $64,326 in 1957-58 but the orchard expenses dropped for those years from $62,623 to $56,583 which nearly doubled the net returns. This year's gross income brings the total returns from sale of walnuts since March 1930 to over $1,000,000.

The new 60 acre orchard has acquired a vigorous and healthy growth and gives a good promise for the future.

The 16 year old antiquated and impractical sprayer was replaced with a new speedsprayer this year. This permits a better job of spraying, in less time.

Consideration is being given to leasing the walnut orchard to a private party on a percentage basis. This would release existing employees for other work and should provide a higher net income to the City.

GENERAL:

Control work and the program for weed control, sanitary measures and rodent control, in cooperation with the various Departments of Agriculture, Health Boards and the University of California in various experiments, has been benefically carried on.

A number of high producing leases and permits were approved but will not be reflected until the next fiscal year.

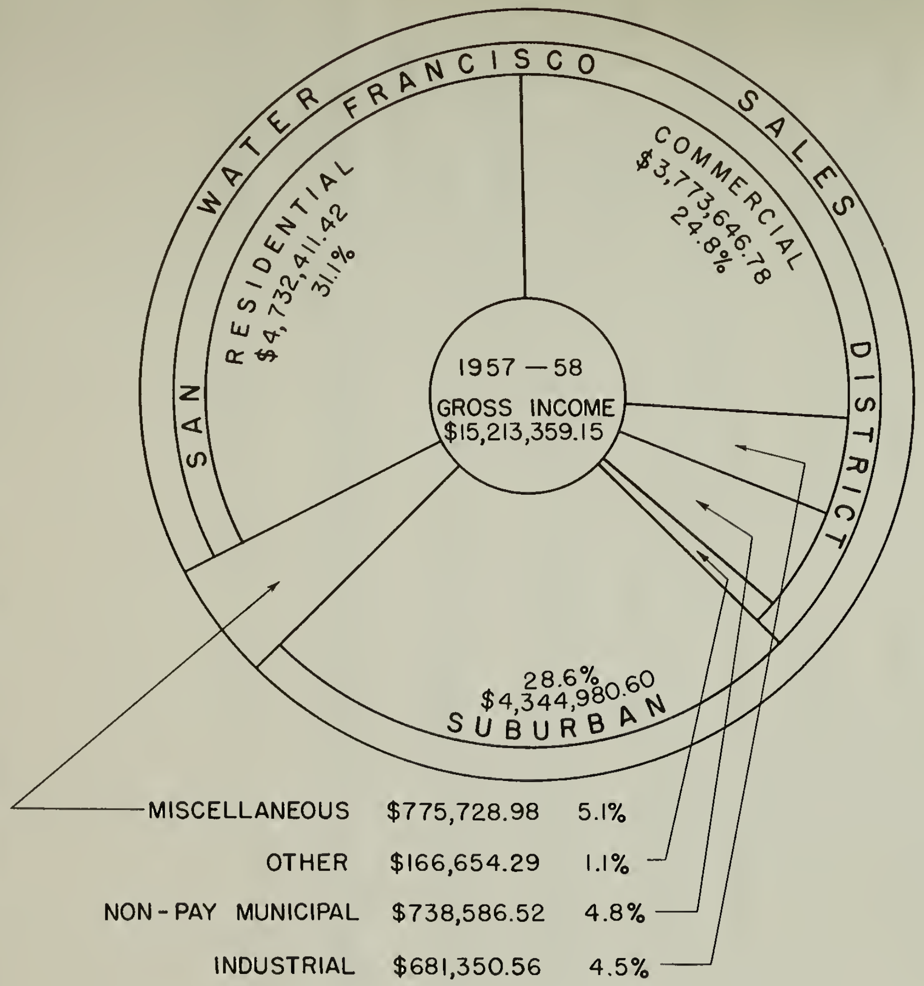
All leases now call for Public Liability and Property Damage insurance in order that the City may be properly protected from liability in these lease operations.

WALNUT CROP AND VALUE
DURING CITY OWNERSHIP

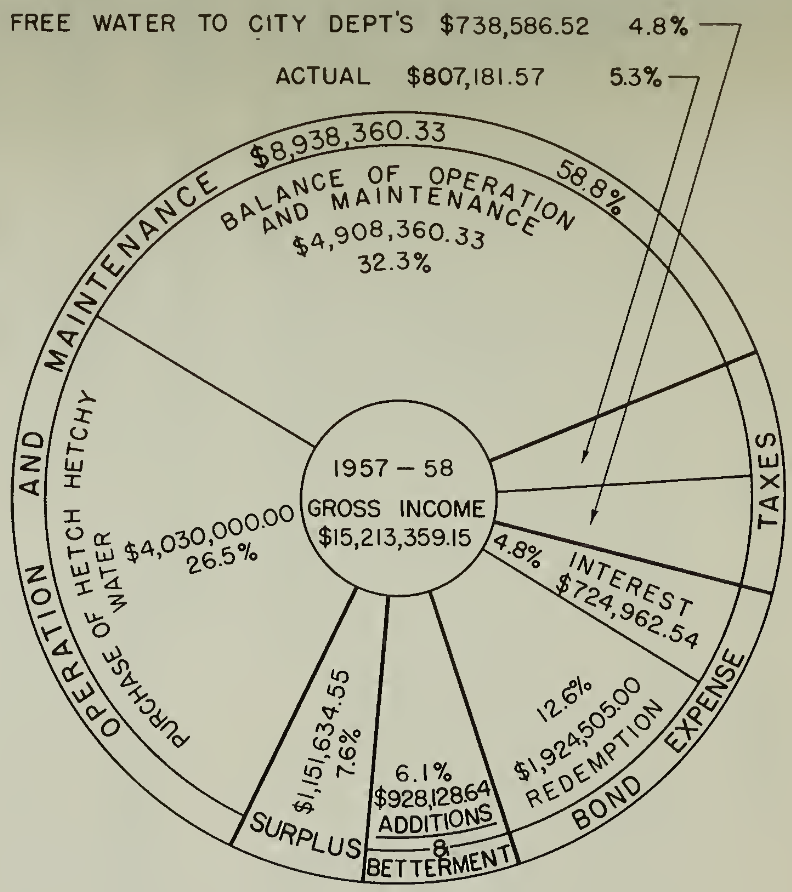
Year	Total Yield Pounds	Gross Value	Net Cash Received	Association Charges % of Gross *	Packing House Charges per lb.
1930	110,361.	$23,905.44	$20,024.55	16.23	$ .0138
1931	91,570.	13,778.73	12,272.73	10.93	.0091
1932	206,795.	28,994.25	20,391.18	29.67	.0070
1933	153,080.	23,635.21	17,905.45	24.24	.0073
1934	136,672.	18,039.52	13,236.00	26.63	.0059
1935	209,095.	27,359.11	22,719.87	16.96	.0045
1936	187,605.	27,865.13	24,947.57	10.47	.0046
1937	179,954.	23,808.71	21,102.05	11.37	.0042
1938	258,934.	36,812.05	31,801.16	13.61	.0090
1939	153,770.	12,747.35	11,366.74	10.83	.0124
1940	90,148.	13,570.25	11,671.08	14.00	.0100
1941	239,062.	37,182.09	29,807.07	19.83	.0088
1942	254,594.	45,744.85	44,000.73	3.81	.0068
1943	188,590.	49,552.64	48,373.84	2.38	.0082
1944	107,831.	29,487.66	26,901.72	8.77	.0138
1945	214,919.	62,893.03	58,474.64	7.03	.0126
**1946	240,883.	73,017.57	73,017.57	0	0
**1947	81,167.	16,700.11	16,700.11	0	0
**1948	196,529.	39,896.52	39,896.52	0	0
**1949	153,434.	25,546.71	25,546.71	0	0
1950	135,377.	31,879.62	26,983.69	15.36	.0361
1951	184,497.	50,394.52	41,728.69	17.19	.0470
1952	232,716.	67,279.72	50,687.67	24.66	.0713
1953	152,766.	47,826.07	36,410.41	23.87	.0747
1954	197,848.	50,004.74	35,796.44	28.41	.0718
1955	127,758.	44,523.64	36,125.31	18.74	.0653
1956	167,881.	67,425.47	46,511.84	31.02	.1246
1957	174,956.	68,551.22	47,288.69	31.02	.1215
Prior Years Adjust		3,431.54	3,431.54		
	4,828,792	1,057,828.46	895,375.65		

*Includes cost of surplus control, operating reserve and revolving fund in addition to actual Association charges for marketing expense.

**Sold under competitive bids.



SOURCE OF INCOME
FISCAL YEAR ENDING JUNE 30, 1958



DISPOSITION OF GROSS INCOME
FISCAL YEAR ENDING JUNE 30, 1958

X-1124A

ACCOUNTING AND AUDITING

The accounts of the San Francisco Water Department are maintained strictly in accordance with the requirements of the State Public Utilities Commission and Section 64 of the Charter. The accounts of the Department have been so coordinated with the Controller's system that no encumbrance or expenditure against budget estimates can be incurred without prior certification from the Controller that funds are available. As provided in Ordinance 9.0621, an annual audit of the Department is made as of June 30, by a firm of certified public accountants. The accountant's report is not available at the time the Department's financial statement goes to press, hence there may be minor differences between the two reports due to reclassifications made by the accountants.

Comments on Financial Statements:

An analysis of the disposition of Earned Surplus, together with additions thereto and deductions therefrom is shown in the body of these comments.

The following financial statements and cost reports are presented:

Balance Sheet-June 30, 1958 (Exhibit A).

Income Statement for the years ending June 30, 1957 and June 30, 1958 (Exhibit B).

Surplus Account June 1958 (Exhibits C and D).

Comparative Statement of Operating Expenses for fiscal year 1956-57 and 1957-58 (Exhibit E).

Operating Expenses for past four fiscal years (Schedules Nos. 1, 2, 3 and 4).

Additions, Betterments and Replacements for fiscal year 1957-58 (Schedule No. 5).

Agricultural Division, Receipts and Expenses for past five years (Schedule No. 6).

Operating Expenses, City Distribution Division for fiscal year 1957-58 (Schedule Nos. 11 and 12).

Operating Expenses, outside of San Francisco for fiscal year 1957-58 (Schedules Nos. 13 and 14).

Operating Expenses show a net increase of $326,153.35 as shown by the following tabulation:

	Increase	Decrease
Source of Supply	$ 55,567.75	$
Standby Charge and Purchase of water	no change	
Pumping Expenses	7,913.41	
Purification Expenses	21,921.57	
Transmission and Distribution Expenses	127,818.11	
Commercial Div'n Expenses	32,079.52	
Administrative & General		38,507.28
Taxes Actual	82,758.02	
Provision for Doubtful Accts.	243.42	
Provision for Depreciation	29,835.72	
Municipal Taxes, Comparison*	7,132.79	
Reserve for Refunds		609.68
Net Increase		326,153.35
	$365,270.31	$365,270.31

*Water delivered to Municipal Departments offset by taxes.

PUBLIC UTILITIES COMMISSION
SAN FRANCISCO WATER DEPARTMENT

DISPOSITION OF SURPLUS

	TO JUNE 30, 1957	YEAR 1957-1958	TO JUNE 30, 1958
SURPLUS			
CONTRIBUTED TO:			
GENERAL FUND	$ 15,992,457.24		$ 15,992,457.24
HETCH HETCHY PROJECT	4,510,127.21		4,510,127.21
HETCH HETCHY POWER	1,228.59		1,228.59
APPROPRIATED FOR:			
BOND REDEMPTION - SPRING VALLEY	27,000,000.00	$1,000,000.00	28,000,000.00
" " - 1933 WATER DISTRIBUTION	9,844,594.33		9,844,594.33
1947 HETCH HETCHY BOND REDEMPTION	4,525,563.00	924,505.00	5,450,068.00
ADDITIONS AND BETTERMENTS	29,490,137.79	928,128.64	30,418,266.43
ADDITIONS AND BETTERMENTS, LAKE MERCED PROJECT	1,250,000.00		1,250,000.00
PURCHASE OF LAND	54,858.50		54,858.50
OTHER PURCHASES	100,429.29		100,429.29
FROM SURPLUS	—1,847,907.99	1,366,718.25	—481,189.74
	$ 90,921,487.96	$ 4,219,351.89	$ 95,140,839.85
ADD:			
INITIAL EXCESS EARNINGS - SPRING VALLEY WATER COMPANY	$ 4,152,652.24		$ 4,152,652.24
VALUATION MUNICIPAL WATER WORKS	100,000.00		100,000.00
GRANTS EARNED ON FEDERAL PROJECTS	2,358,987.60		2,358,987.60
CONTRIBUTIONS IN AID OF CONSTRUCTION	165,000.00		165,000.00
SURPLUS MATERIAL AND EQUIPMENT	373,041.59		373,041.59
LAND SALES - PROFIT	1,386,174.29		1,386,174.29
BOND PREMIUM	840,660.86		840,660.86
PALO ALTO PIPE LINE	360,271.90		360,271.90
MISCELLANEOUS ADDITIONS	398,027.42		398,027.42
BAY BRIDGE PUMP AND SUPPLY LINE	219,601.79		219,601.79
REVALUATION OF WATER DEPARTMENT PROPERTIES	765,951.12		765,951.12
	$ 11,120,368.81		$ 11,120,368.81
DEDUCT:			
CONTRIBUTION BY HETCH HETCHY FOR SUTRO RESERVOIR	$ 409,471.41	$	$ 409,471.41
CONTRIBUTION TO GENERAL FUND	15,992,457.24		15,992,457.24
DEFICIT COUNTY LINE WATER WORKS	19,189.15		19,189.15
PAYMENT FOR PURPOSE OF ENABLING CITY TO TAKE OVER PROPERTIES IN ADVANCE	745,274.31		745,274.31
LANDS CONTRIBUTED TO CITY	172,564.67		172,564.67
CONTRIBUTION TO HETCH HETCHY WATER SUPPLY	4,430,005.85		4,430,005.85
MISCELLANEOUS DEDUCTIONS FROM SURPLUS	275,549.70		275,549.70
DEPRECIATION DUE TO REVALUATION	9,059,955.03		9,059,955.03
DEPRECIATION NOT FUNDED (ACCRUED 3-3-30)	15,627,599.97	162,123.81	15,789,723.78
	$ 46,732,067.33	$ 162,123.81	$ 46,894,191.14
	$ 55,309,789.44	$4,057,228.08	$ 59,367,017.52

EXHIBIT "A"
SAN FRANCISCO WATER DEPARTMENT
BALANCE SHEET
JUNE 30, 1958

ASSETS

FIXED CAPITAL:		
IN SERVICE	$105,173,983.46	
NOT IN SERVICE	747,753.60	
	$105,921,737.06	
LESS PROV'N. FOR DEPRECIATION	35,608,301.36	
	$ 70,313,435.70	
CONSTRUCTION WORK IN PROGRESS	1,821,397.82	$72,134,833.52
CASH:		
TREASURER'S BALANCE, SCHEDULE ANNEXED	$ 7,186,800.81	
REVOLVING FUND	30,000.00	
OTHER CASH	-0-	7,216,800.81
ACCOUNTS RECEIVABLE:		
CONSUMERS' ACCOUNTS	$ 1,117,885.76	
LESS RESERVE FOR LOSSES	97,408.39	
	$ 1,020,477.37	
OTHER ACCOUNTS RECEIVABLE:		
REVENUE	$ 61,655.82	
NON-REVENUE	307.41	1,082,440.60
INTERFUND ACCOUNTS:		
SCHEDULE ANNEXED:		
PUBLIC SERVICE ENTERPRISES	$ 12,415.09	
GENERAL CITY AND COUNTY	-0-	12,415.09
DEFERRED CHARGES:		
OPERATING FUND EXPENDITURES UNBILLED	$ 102,817.13	
PREPAID TAXES	-0-	
HETCH HETCHY PROJECT	-0-	
DEPOSIT FOR ORDERS OF POSSESSION	25,925.50	
MATERIAL AND SUPPLIES	584,106.80	
MISCL. JOBBING & SALES A/C, ETC.	29,343.65	
PUBLIC UTILITIES COMMISSION	-0-	742,193.08
TOTAL ASSETS		$81,188,683.10

LIABILITIES

BONDED DEBT:		
1947 HETCH HETCHY BOND		$ 7,049,932.00
SPRING VALLEY WATER BONDS, 1928	$13,000,000.00	
MATURED, NOT PRESENTED FOR PAYMENT: SPRING VALLEY 1928	16,000.00	13,016,000.00
BOND INTEREST PAYABLE:		
ACCRUED, NOT DUE: SPRING VALLEY WATER BONDS, 1928	$ 292,500.00	
MATURED, NOT PRESENTED FOR PAYMENT: SPRING VALLEY, 1928	6,660.00	299,160.00
ACCOUNTS PAYABLE:		
WARRANTS OUTSTANDING SCHEDULE ANNEXED	$ 371,724.79	
CONSUMERS' DEPOSITS & ADVANCES	219,637.47	
GENERAL CREDITORS	156,546.38	
ACCRUED PAYROLL	-0-	
PAYROLL DEDUCTIONS PAYABLE	17,806.25	765,714.89
INTERFUND ACCOUNTS:		
SCHEDULE ANNEXED:		
PUBLIC SERVICE ENTERPRISES	$ 75,234.69	
GENERAL CITY AND COUNTY	130,712.70	205,947.39
DEFERRED CREDITS:		
RESERVE FOR CONTINGENCY REFUNDS - FUNDED	$ 270,209.07	
RESERVE FOR CONTINGENCY REFUNDS - UNFUNDED	60,640.06	
RESERVE FOR COMPENSATION INSURANCE	143,701.56	
OTHER DEFERRED CREDITS	10,360.61	484,911.30
SURPLUS, SCHEDULE ANNEXED		59,367,017.52
TOTAL LIABILITIES		$81,188,683.10

GDB
GJC
NBC
WJD
HCM
GPN
JR-4
RJR-2
JHT
ZHT-4
VHW
BUR.GOV.RES.
DMY

JR:EL
9-25-58

EXHIBIT "B"

SAN FRANCISCO WATER DEPARTMENT

INCOME ACCOUNT

TWELVE MONTHS ENDING JUNE 30, 1958 AND 1957

	TWELVE MONTHS ENDING JUNE 30, 1958	1957	INCREASE OR − DECREASE	CUMULATION FROM MARCH 3, 1930 TO JUNE 30, 1958
SALES OF WATER:				
San Francisco	$ ~~9,286,531.01~~ 9,287,227.70	$ 9,141,812.25	$~~144,718.76~~ 145,415.45	$ ~~210,813,869.34~~ 210,814,566.03
Outside San Francisco	~~4,345,677.29~~ 4,344,980.60	4,057,978.10	~~287,699.19~~ 287,002.50	~~40,220,338.26~~ 40,219,641.57
Municipal Departments - Actual	66,835.35	63,170.59	3,664.76	1,671,694.78
Municipal Departments - Comparison *	738,586.52	731,453.73	7,132.79	14,936,686.64
	$14,437,630.17	$13,994,414.67	$443,215.50	$ 267,642,589.02
OPERATING EXPENSES:				
Source of Water Supply	$ 501,198.76	$ 445,631.01	$ 55,567.75	$ 8,493,155.08
Standby Charge and Purchase of Water	4,030,000.00	4,030,000.00	—	48,946,061.92
Pumping	343,897.11	335,983.70	7,913.41	8,111,104.79
Purification	230,746.64	208,825.07	21,921.57	2,572,153.09
Transmission and Distribution	1,241,361.92	1,113,543.81	127,818.11	14,938,135.21
Commercial Division	662,712.51	630,632.99	32,079.52	12,765,722.48
Administrative and General	761,246.23	799,753.51	−38,507.28	11,464,189.95
Taxes – Actual	807,181.57	724,423.55	82,758.02	10,799,793.80
Provisions for Doubtful Accounts	9,091.39	8,847.97	243.42	285,173.49
Provision for Depreciation	1,160,691.72	1,130,856.00	29,835.72	29,549,536.23
Municipal Taxes - Comparison *	738,586.52	731,453.73	7,132.79	14,952,925.36
Reserve for Refunds	59,748.47	60,358.15	- 609.68	333,121.15
Undistributed Expenses	-0-			
	$10,546,462.84	$10,220,309.49	$326,153.35	$ 163,211,072.55
EXCESS OF OPERATING INCOME OVER OPERATING EXPENSES BEFORE BOND INTEREST, BOND RETIREMENT AND COST OF EXTENSIONS	$ 3,891,167.33	$ 3,774,105.18	$117,062.15	$ 104,431,516.47
OTHER INCOME:				
Rentals, Including Crop Shares	$ 283,191.06	$ 271,878.34	$ 11,312.72	$ 3,573,267.43
Interest Earned	55,469.18	23,154.60	32,314.58	611,618.51
Sale of Walnuts	64,326.21	67,425.47	- 3,099.26	1,057,628.46
Miscellaneous	372,742.53	46,069.64	326,672.89	1,557,954.63
	$ 775,728.98	$ 408,528.05	$367,200.93	$ 6,800,469.03
OTHER EXPENSES:				
Bond Interest	$ 724,962.54	$ 782,031.11	- $ 57,068.57	$ 39,730,895.97
Agricultural Division	31,308.05	15,113.44	16,194.61	474,563.13
Walnut Orchard Expenses	56,583.49	62,623.35	- 6,039.86	752,259.79
Miscellaneous	23,013.76	19,467.31	3,546.45	167,926.00
	$ 835,867.84	$ 879,235.21	- $ 43,367.37	$ 41,125,644.89
NET INCOME APPLICABLE TO BOND REDEMPTION AND COST OF EXTENSIONS	$ 3,831,028.47	$ 3,303,398.02	$527,630.45	$ 70,106,340.61

* Water Service to Municipal Departments Offset by Municipal Taxes.

EXHIBIT "C"

SAN FRANCISCO WATER DEPARTMENT

SURPLUS ACCOUNT

FOR TWELVE MONTHS ENDING JUNE,30, 1958

SURPLUS, JUNE 30, 1957		$ 55,309,789.44
ADD:		
TRANSFER OF LAND ACQUIRED BY 1947 HETCH HETCHY BOND FUND	$ 34,328.01	
RESERVE FOR OVERHEAD AS OF JUNE 30, 1957, CLOSED TO SURPLUS	191,871.60	
NET INCOME FOR TWELVE MONTHS ENDING JUNE 30, 1958	3,831,028.47	4,057,228.08
SURPLUS, JUNE 30, 1958		$ 59,367,017.52

EXHIBIT "D"

COMPOSITION OF SURPLUS - CONDENSED

JUNE 30, 1958

INITIAL SURPLUS - March 3, 1930				
AMORTIZATION ON CONTRIBUTION (SPRING VALLEY)		$ 4,152,652.24		
VALUATION OF MUNICIPAL WATER WORKS		100,000.00		
		$ 4,252,652.24		
LESS: ADDITIONAL ALLOWANCE FOR DEPRECIATION MARCH 1, 1920 TO MARCH 3, 1930		2,327,916.67	$ 1,924.735.57	
ADDITIONS:				
NET PROFIT, MARCH 3, 1930 TO JUNE 30, 1958		$ 70,106,340.61		
MISCELLANEOUS AND YEAR TO YEAR ADJUSTMENTS		5,378,986.82		
CONTRIBUTION FROM HETCH HETCHY POWER DIVISION		409,471.41		
CONTRIBUTION FROM 1947 HETCH HETCHY WATER BOND		244,952.63	76,139.751.47	
GRANTS EARNED ON FEDERAL PUBLIC WORKS PROJECT			2,358,987.60	
YEAR TO YEAR - ADDITIONS TO SURPLUS - JUNE 30, 1958			1,669,481.49	$ 82,092,956.13
DEDUCTIONS:				
CONTRIBUTED TO GENERAL FUND			$ 15,992,457.24	
" " HETCH HETCHY WATER SUPPLY			4,466,014.40	
LANDS CONTRIBUTED				
TO CITY AND COUNTY OF SAN FRANCISCO FOR STREETS AND BOULEVARDS			172,564.67	
EXCESS OF ADJUSTED BOOK VALUE OF PLANT APPRAISAL, DECEMBER 31, 1937	$ 1,990,474.91			
" " " " " " " " JUNE 30, 1953	188,291.42	$ 2,178,766.33		
LESS: ADJUSTED BOOK VALUE ON PLANT APPRAISAL JUNE 30, 1948		83,864.03	2,094,902.30	22,725,938.61
SURPLUS - JUNE 30, 1958				$ 59,367,017.52

PUBLIC UTILITIES COMMISSION
SAN FRANCISCO WATER DEPARTMENT

EXHIBIT "E"

COMPARATIVE STATEMENT OF OPERATING EXPENSES
FOR THE FISCAL YEARS ENDING JUNE 30, 1957 AND JUNE 30, 1958

	FISCAL YEAR ENDED JUNE 30	
	1957	1958
SOURCE OF WATER SUPPLY EXPENSES:		
SUPERINTENDENCE	$ 61,515.99	$ 71,062.72
OPERATING LABOR	87,695.75	95,916.53
OPERATING SUPPLIES AND EXPENSES	23,538.56	21,394.06
REPAIRS & MAINTENANCE - BUILDINGS, FIXTURES & GROUNDS	181,627.83	232,862.29
REPAIRS - SURFACE FACILITIES	91,252.88	79,963.16
	$ 445,631.01	$ 501,198.76
PUMPING EXPENSES:		
LABOR - PUMPING	$ 67,458.37	$ 81,902.45
FUEL FOR STEAM	25,041.04	
POWER PURCHASED	225,293.75	237,462.71
LUBRICANTS	7.31	3.82
MISCELLANEOUS SUPPLIES AND EXPENSES	2,395.26	2,257.38
REPAIRS - PRIMARY PUMPING EQUIPMENT	7,535.90	5,552.29
REPAIRS - MISCELLANEOUS EQUIPMENT	1,391.03	420.38
REPAIRS - BUILDING FIXTURES AND GROUNDS	6,861.04	16,298.08
	$ 335,983.70	$ 343,897.11
PURIFICATION EXPENSES:		
SUPERINTENDENCE AND LABOR	$ 61,732.65	$ 76,100.12
SUPPLIES AND EXPENSE	144,497.78	149,940.83
REPAIRS - PLANT, STRUCTURES AND EQUIPMENT	2,594.64	4,705.69
	$ 208,825.07	$ 230,746.64
TRANSMISSION AND DISTRIBUTION EXPENSES:		
SUPERINTENDENCE	$ 92,355.72	$ 106,899.92
PATROLLING STORAGE FACILITIES	30,799.48	30,175.93
METERS AND FITTINGS DEPARTMENT	164,936.97	189,951.12
STREET DEPARTMENT	33,790.25	43,712.07
CONSUMERS' PREMISES EXPENSES	68,759.35	69,266.81
MISCELLANEOUS SUPPLIES AND EXPENSES	46,055.73	46,835.63
REPAIRS - TRANSMISSION MAINS AND CANALS	87,928.48	72,546.19
REPAIRS - RESERVOIRS, TANKS AND STANDPIPES	4,546.30	36,794.66
REPAIRS - DISTRIBUTION MAINS AND CANALS	275,866.14	256,710.23
REPAIRS - DISTRIBUTION BUILDINGS AND GROUNDS	56,296.49	65,154.50
REPAIRS - DISTRIBUTION EQUIPMENT	17,133.01	20,324.33
REPAIRS - SERVICE CONNECTIONS	228,643.01	249,847.05
RECONSTRUCT AND RELOCATE PIPE LINES AND SERVICES	6,432.88	53,143.48
	$1,113,543.81	$1,241,361.92

PUBLIC UTILITIES COMMISSION
SAN FRANCISCO WATER DEPARTMENT

EXHIBIT "E"

- Continued -

	FISCAL YEAR ENDED JUNE 30	
	1957	1958
COMMERCIAL EXPENSES:		
COLLECTIONS	$ 147,334.93	$ 153,138,62
READING METERS	73,474.98	76,473.50
BOOKKEEPING DEPARTMENT	206,710.85	219,527.70
GENERAL	98,552.04	108,153.25
INSPECTION AND SERVICE	80,043.89	79,770.56
SHIPPING	24,516.30	25,648.88
	$ 630,632.99	$ 662,712.51
ADMINISTRATIVE AND GENERAL EXPENSE:		
SALARIES - GENERAL OFFICERS	$ 39,775.67	$ 43,484.64
SALARIES - GENERAL OFFICE CLERKS	79,368.98	87,763.43
MISCELLANEOUS SUPPLIES AND EXPENSES	3,010.68	2,740.90
INJURIES AND DAMAGES	36,687.91	18,163.04
RETIREMENT SYSTEM CONTRIBUTIONS	254,494.13	264,882.71
MASON STREET BUILDING EXPENSE	48,078.19	52,363.79
TELEPHONE SERVICE	38,668.89	45,104.79
GUEST COTTAGES AND REST ROOM	3.40	1.70
GENERAL ENGINEERING	103,501.58	116,236.44
HYDROGRAPHY	1,591.12	788.19
MISCELLANEOUS	- 21,967.40	- 42,575.13
COMPENSATION INSURANCE	16,426.85	18,027.22
OTHER INSURANCE	12,905.01	17,268.46
REPAIRS - MASON ST. BUILDING	36,057,45	8,123.34
REPAIRS - TELEPHONE SYSTEM	16,014.03	13,595.67
REPAIR EXTRAORDINARY	23,499.32	18.96
PROFESSIONAL SERVICES	13,921.00	5,125.00
PUBLIC UTILITY COMMISSION EXPENSE	97,716.70	110,142.65
PROPERTY TAXES (OUTSIDE OF SAN FRANCISCO)	724,423.55	807,172.00
	$1,524,177.06	$1,568,427.80

PUBLIC UTILITIES COMMISSION
SAN FRANCISCO WATER DEPARTMENT

OPERATING EXPENSES
SCHEDULE NO. 1

RESERVOIRS AND SOURCES:	1953-1954	1954-1955	1955-1956	1956-1957	1957-1958
INSIDE OF SAN FRANCISCO:					
Central Pump Supply	$	$	$	$ -80.24	$
Lake Merced	14,370.48	5,841.09	7,036.17	4,925.32	5,438.05
	$ 14,370.48	$ 5,841.09	$ 7,036.17	$ 4,845.08	$ 5,438.05
OUTSIDE OF SAN FRANCISCO:					
SURFACE SOURCES:					
San Andres Reservoir	$ 24,367.47	$ 24,125.65	$ 33,716.18	$ 31,996.03	$ 35,148.05
Crystal Springs Reservoir	74,190.08	77,194.86	72,929.71	76,167.58	92,598.68
Pilarcitos Reservoir	37,114.28	32,332.60	50,694.70	30,496.77	55,763.24
Calaveras Reservoir	21,997.29	20,140.73	25,100.85	26,520.57	26,267.63
	$157,669.12	$153,793.84	$182,441.44	$165,180.95	$209,777.60
GROUND SOURCES:					
Sunol Filter Beds	$ 16,426.83	$ 12,069.86	$ 15,386.93	$ 15,501.97	$ 17,629.29
Pleasanton Wells	1,221.71	1,185.71	1,519.50	1,801.04	2,082.43
	$ 17,648.54	$ 13,255.57	$ 16,906.43	$ 17,303.01	$ 19,711.72
SUPPLY LINES AND AQUEDUCTS:					
Bay Division Pipe Line No. 3	$	$	$ 4,221.03	$ 7,665.44	$ 7,223.56
Bay Division Pipe Lines Nos. 1 and 2 (Peninsula Division)	53,057.42	112,738.82	54,991.83	45,614.59	31,243.92
Stone Dam Aqueduct	6,841.02	4,473.95	8,873.23	6,358.34	12,321.01
Niles Irvington Pipe Line	1,671.70	2,061.82	2,314.16	1,151.70	1,548.31
Bay Division Pipe Lines Nos. 1 and 2			7,941.20	6,135.90	12,823.90
(Alameda Division) No. 3				3,727.95	1,424.86
Other Supply Lines and Aqueducts (Penin. Div.)	7,625.14	5,624.34	10,917.78	14,461.12	9,224.50
Other Supply Lines (Alameda Division)			15,901.72	15,703.07	12,725.49
Cathodic Protection			2,195.17	5,480.14	270.34
	$ 69.195.28	$124,898.93	$107,356.12	$106,298.25	$ 88,805.89
Alameda System - General Expenses	$ 34,980.70	$ 38,596.00	$39,298.48	$ 39,357.75	$ 46,585.73
Peninsula System - General Expenses	99,737.32	113,980.45	121,495.87	112,645.97	130,879.77
	$134,718.02	$152,576.45	$160,794.35	$152,003.72	$177,465.50
TOTAL SOURCE OF SUPPLY EXPENSE	$393,601.44	$450,365.88	$474,534.51	$445,631.01	$501,198.76

PUBLIC UTILITIES COMMISSION
SAN FRANCISCO WATER DEPARTMENT

SCHEDULE NO. 2
OPERATING EXPENSES

PUMP STATIONS	1954-1955	1955-1956	1956-1957	1957-1958
INSIDE OF SAN FRANCISCO:				
STEAM PLANTS:				
Central	$142,085.05	$103,370.01	$ 29,710.59	$ 30,533.78
ELECTRIC PUMPS:				
Alemany	$ 45,141.93	$ 9,659.34	$ 185.86	$ 499.62
Bay Bridge Pump - Treasure Island	8,986.10	7,623.37	8,436.60	7,794.96
Bernal Heights	446.71	815.17	186.64	253.38
Crocker Amazon		2,754.40	3,367.72	520.09
Fairview	798.52	492.34	578.37	464.44
Forest Hill	10,348.23	9,947.55	10,785.45	8,683.12
Francisco Street	2,788.00	1,428.22	703.08	---
Lake Honda Booster	407.55	645.87	933.38	945.05
Lake Merced	27,000.20	83,466.26	121,991.72	124.462.33
Lincoln Park	658.04	730.24	821.17	899.06
Lone Mountain		209.20	509.15	682.35
McLaren		7.14	989.82	816.66
Mount Davidson	861.22	1,096.36	1,170.75	761.66
Newcomb Avenue or Lane Street	4,701.11	4,884.18	5,086.50	5,205.07
Olmstead and University	808.76	666.64	671.36	759.61
Palo Alto	194.04	524.05	386.19	352.28
Potrero Heights	1,126.43	545.82	456.35	657.07
Summit	97.03	3,712.96	3,322.89	5,655.97
Sunset Booster			7.04	---
Sunset Source				21.08
Twin Peaks	1,170.02	1,216.13	1,464.23	1,228.81
General	1,436.09	612.31	1,506.39	6,115.81
Candlestick Cove			182.26	200.65
Leland Avenue			6.36	27.08
	$106,969.98	$131,037.55	$163,749.28	$167,006.15
TOTAL INSIDE OF SAN FRANCISCO	$249,055.03	$234,407.56	$193,459.87	$197,539.93
OUTSIDE OF SAN FRANCISCO:				
Baden	$ 2,632.42	$ 2,839.95	$ 1,621.05	$ 2,098.07
Crystal Springs Pump	142,046.96	113,829.12	125,492.91	115,628.51
Bay Division Pump	594.25	760.45	627.60	603.71
Pleasanton Pump	1,678.32	546.69	2,376.53	3,020.75
Pleasanton Township Water District	3,300.85	4,793.55	1,534.36	1,740.04
Irvington Pump	5,947.76	9,984.98	10,871.38	23,266.10
TOTAL OUTSIDE OF SAN FRANCISCO	$156,200.56	$132,754.74	$142,523.83	$146,357.18
GRAND TOTAL	$405,255.59	$367,162.30	$335,983.70	$343,897.11

PUBLIC UTILITIES COMMISSION
SAN FRANCISCO WATER DEPARTMENT

SCHEDULE NO. 3
OPERATING EXPENSES

PURIFICATION EXPENSES	1954-1955	1955-1956	1956-1957	1957-1958
INSIDE OF SAN FRANCISCO:				
Alemany Fluoridation	$ 2,003.43	$	$	$ .22
College Hill	474.97	666.51	1,670.22	845.35
Francisco Street	54.08	23.90		
Lake Honda	-	-	1,013.77	
Lake Merced	94.55	24.67	36.74	44.89
Lombard Street	42.96	98.22	100.85	117.11
Sunset	222.15	337.44	338.79	449.75
Sutro	.88	182.17		6.35
University Mound	1,158.52	1,476.30	1,756.50	2,969.27
Merced Manor				198.74
Sterilization of Mains				979.94
TOTAL INSIDE OF SAN FRANCISCO	$ 4,051.54	$ 2,809.21	$ 4,916.87	$ 5,611.62
OUTSIDE OF SAN FRANCISCO:				
Crystal Springs Chlorination	$	$	$	$ 18,555.81
Crystal Springs Fluoridation Plant		16,760.39	17,285.50	15,692.09
North San Andres Fluoridation Plant	10,329.64	21,124.54	11,950.40	16,719.71
Rock River Lime Plant	16,005.34	13,242.46	17,390.74	15,261.08
San Andres Reservoir	12,229.71	10,661.89	13,274.41	12,932.15
Crystal Springs Reservoir	8,954.35	12,018.42	13,731.71	
Calaveras Reservoir	7,972.74	7,932.27	21,852.88	13,888.76
Sunol Purification System	1,106.78	880.82	150.88	1,546.80
Other Outside Stations	1,514.04	4,425.87	3,377.47	5,122.18
Coast Range Division, H.H.W.S.	28,453.81	27,749.79	29,745.57	25,812.68
Millbrae Laboratory	54,935.54	56,364.23	68,745.85	73,337.93
Alum Treatment		730.01	6,402.79	26,265.83
TOTAL OUTSIDE OF SAN FRANCISCO	$141,501.95	$171,890.69	$203,908.20	$225,135.02
TOTAL PURIFICATION EXPENSES	$145,553.49	$174,699.90	$208,825.07	$230,746.64

PUBLIC UTILITIES COMMISSION
SAN FRANCISCO WATER DEPARTMENT

SCHEDULE NO. 4
OPERATING EXPENSES

TRANSMISSION AND DISTRIBUTION	1954-1955	1955-1956	1956-1957	1957-1958
INSIDE OF SAN FRANCISCO:				
City Transmission Lines	$ 18,757.08	$ 1,024.82	$ 1,179.74	$ 3,943.58
Relocate and Realign Pipe Lines	16,835.90	21,247.74	6,432.88	53,143.48
Reconstruct and Relocate Water Services	117,626.99			
City Distribution Reservoirs	68,566.41	73,216.95	71,931.74	109,208.70
Meter Expenses	128,442.89	133,702.27	136,237.35	165,421.19
Street Department Expenses	38,954.49	39,388.72	33,790.25	43,712.07
Main Repairs	174,642.70	217,122.98	275,866.14	256,691.77
Service Connection Repairs	163,395.18	196,506.82	228,643.01	249,847.05
Repairs to Buildings and Equipment	11,498.93	13,870.18	17,133.01	20,324.33
Operation of Corporation Yard	23,917.76	33,332.44	44,445.36	45,125.36
Consumers' Premises Expenses	62,647.91	65,342.30	68,759.35	69,266.81
Superintendence and Clerical	85,581.04	84,021.83	92,355.72	106,899.92
TOTAL INSIDE SAN FRANCISCO	$910,867.28	$878,777.05	$976,774.55	$1,123,584.26
OUTSIDE OF SAN FRANCISCO:				
Alameda Supply Line - Alameda Division	$ 223.05	$ 1,853.85	$ 2,785.18	$ 1,106.30
Alameda Transmission Line	12,816.97	7,698.62	22,158.05	13,999.84
Sunset Transmission Line	2,003.00	10,505.31	13,225.13	10,603.33
Crystal Springs Pump Aqueduct	16,889.84	13,864.83	16,325.05	22,700.84
New Crystal Springs Transmission Line	11,320.12	5,530.03	7,379.85	9.236.78
Old Crystal Springs Transmission Line	14,310.76	6,450.10	12,931.28	9,599.20
San Andres Transmission Line #1 to College Hill	8,752.91	3,154.48	7,570.21	3,502.51
San Andres Transmission Line #2 to Sunset	3,621.10	8,968.33	8,331.63	7,528.87
San Andres Transmission Line #3 to Merced Manor	2,967.37	2,877.04	9,786.97	6,656.10
Palo Alto Pipe Line	1,164.20	998.64	1,580.07	1,446.24
Niles Regulating Reservoir	6,114.72	5,562.46	5,406.35	6,789.14
Pleasanton Transmission Line	37.38	49.35	589.87	60.12
Meter Expense, Peninsula Division	18,903.09	18,217.99	28,652.67	24,201.54
Meter Expense, Alameda Division	528.02	461.40	46.95	328.39
Main-Canals Repairs, Peninsula Division				18.46
TOTAL OUTSIDE OF SAN FRANCISCO	$ 99,652.53	$ 86,192.43	$136,769.26	$117,777.66
TOTAL TRANSMISSION AND DISTRIBUTION EXPENSES	$1,010,519.81	$964,969.48	$1,113,543.81	$1,241,361.92

SCHEDULE NO. 5
SAN FRANCISCO WATER DEPARTMENT
ADDITIONS, BETTERMENTS AND REPLACEMENT
JUNE 30, 1958

ACCOUNT NO.	CONTRACT NO.	NAME	RETIREMENTS	ADDITIONS	OFFICE	FIELD	FORCE ACCOUNT	CONTRACTS	MATERIAL & SUPPLIES	EQUIPMENT	MISCELLANEOUS
1015		LANDED CAPITAL	$100,088.67	$ 46,033.06	$	$	$	$	$	$	$46,033.06
1020		BUILDINGS, STRUCTURES & GROUNDS									
		REMOVE STOREHOUSE AT CENTRAL PUMP. STA.	1.00								
		REPLACE BOILER AT 425 MASON STREET	1,000.00	1,357.00				1,357.00			
	783	ADJUSTMENT ON CHLORINEBUILDING AT NO. SAN ANDREAS		-763.20				-1,200.00		436.80	
	786	ELECTRICAL ALTERATIONS AT CRYSTAL SPRINGS PUMP STATION		14,318.47	807.57	440.47		8,464.62		4,605.81	
	793	LIGHTING ALTERATIONS IN ROOMS 401-3 AND 701 AT 425 MASON STREET		2,086.61	38.61			2,048.00			
	827	CONSTRUCT CHAIN LINK FENCE, CASEY QUARRY & CHERRY CREEK SITES		2,391.03	248.99			2,142.04			
			$ 1,001.00	$ 19,389.91	$1,095.17	$ 440.47	$	$12,811.66	$	$ 5,042.61	
1025		SOURCE OF SUPPLY									
	635	INSTALLATION OF CATHODIC PROTECTION		17,519.77				17,519.77			
	769	CONSTRUCT BLOWOFF, INSTALL C.I.PIPE AND FITTINGS ON 72" P/L AT CALABAZAS CREEK		1,433.93				1,433.93			
	775	LINING OF PILARCITOS REDWOOD FLUME IN SAN MATEO CO.		17,303.77	2,782.34	1,228.91		13,292.52			
	809	CEMENT LINING PORTION OF 44" PILARCITOS AQUEDUCT		9,709.20	377.26	1,689.43		7,634.03	8.48		
	812	REPAIRS TO UPPER ALAMEDA CREEK DIVERSION DAM		18,928.87	698.92	2,488.52		15,741.43			
		WRITE OFF 44" SIPHON BELOW TUNNEL #2	14,441.00								
		EROSION CONTROL		12,332.57			11,559.76		772.81		
			$ 14,441.00	$ 77,228.11	$3,858.52	$ 5,406.86	$11,559.76	55,621.68	781.29		
1035		PURIFICATION									
		VARIOUS ITEMS OF EQUIPMENT	257.17	8,191.67						8,191.67	
1040		TRANSMISSION AND DISTRIBUTION									
		C.I. MAINS UNDER $2000.00		42,802.87			26,678.16		16,124.71		
		C.I. MAINS OVER $2000.00	15,923.07	429.934.45			67,948.24	201,430.82	160,555.39		
		INSTALL SERVICES IN SAN FRANCISCO	30,043.30	259,857.67			163,464.28	36,320.59	60,072.80		METERS
		FURNISH & INSTALL METERS IN SAN FRAN.	153,235.16	249,685.01			26,863.45		11,483.08		211,338.48
		INSTALLATION OF MAINLINE METERS - SUMMIT PUMP STATION		1,720.88			1,498.12		222.76		
		CUT IN GATE VALVES		13,895.18			9,942.90		3,952.28		
		SALE OF PORTION BADEN TO COLLEGE HILL PIPELINE & TRESTLES	17,289.79								
	734	CONSTRUCTION OF CRYSTAL SPRINGS AND SUNSET SUPPLY LINES, HILLSBOROUGH TUNNEL		1,462,522.54	16,860.01	22,362.68	65,693.36	1,357,132.06	474.43		
	781	CONSTRUCTION OF CRYSTAL SPRINGS AND SUNSET SUPPLY LINES, HILLSBOROUGH TO BURLINGAME		949,096.29	9,166.09	65,688.24		825,676.08	320.59	48,245.29	
	815	CONSTRUCTION OF FENCE AND SIDEWALK AT BALBOA RESERVOIR		23,275.82				23,275.82			
			$ 216,491.32	$3,432.790.71	$26,026.10	$88,050.92	$362,088.51	$2,443,835.37	$253,206.04	$48,245.29	$211,338.48
1041		TRANSMISSION AND DISTRIBUTION									
		FURNISH AND INSTALL METERS OUTSIDE SAN FRANCISCO	11,469.80	12,333.50			290.46				12,043.04
		INSTALL SERVICES OUTSIDE SAN FRANCISCO		18,639.68			9,006.91		9,632.77		
			11,469.80	30,973.18			9,297.37		9,632.77		12,043.04
1045		GENERAL EQUIPMENT	5,056.98	18,900.23						18,900.23	
1046		AUTOMOTIVE EQUIPMENT	69,694.49	108,763.69						108,763.69	
1048		NON-OPERATING CAPITAL	2,170.95	9,508.86						9,508.86	
1050		UTILITY PLANT HELD FOR FUTURE USE	1,251.76								
			$421,923.14	$3,751,779.42	30,979.79	$93,898.25	$382,945.64	$2,512,268.71	$263,620.10	$198,652.35	$269,414.58

PUBLIC UTILITIES COMMISSION
SAN FRANCISCO WATER DEPARTMENT

SCHEDULE NO. 6
AGRICULTURAL AND LAND DIVISION
RECEIPTS AND EXPENSES

	1953-54	1954-55	1955-56	1956-57	1957-58
RECEIPTS, AGRICULTURAL:					
RENTALS - CATTLE LEASES	$ 94,361.98	$100,969.12	$ 96,547.03	$ 95,915.82	$108,860.91
RENTALS - FARMING	57,756.70	58,321.73	56,536.82	56,992.50	55,334.18
RECEIPTS, NON-AGRICULTURAL:					
RENTALS - FLAT RATES	$ 12,113.46	$ 16,755.08	$ 20,318.98	$ 23,131.55	$ 48,259.32
TAXES PAID BY TENANTS	2,693.96	4,375.65	5,471.89	4,016.60	4,450.25
ROYALTIES AND PERCENTAGES	105,886.19	89,646.04	58,827.65	84,804.37	55,760.26
SALES OF WALNUTS	47,826.07	50,004.74	44,523.64	67,425.47	68,551.22
TOTAL GROSS INCOME	$320,638.36	$320,072.36	$282,226.01	$332,286.31	$341,216.14
EXPENSES:					
ADMINISTRATIVE AND SUPERINTENDENCE	$ 9,926.23	$ 13,678.51	$ 15,813.18	$ 16,150.55	$ 18,304.84
MISCELLANEOUS OFFICE SUPPLIES AND EXPENSES	1,047.60	3,089.51	3,986.26	1,361.88	1,786.52
AUTOMOTIVE SERVICE	1,645.87	1,629.55	1,575.01	1,927.02	1,494.10
SHARE CROPS:					
STORAGE INSURANCE, HANDLING FREIGHT	351.00	203.98	241.62	181.32	172.59
CARE OF PROPERTIES:					
REPAIRS - BUILDINGS, STRUCTURES AND GROUNDS	6,329.26	5,730.20	10,400.34	7,221.36	18,446.13
WALNUT ORCHARD:					
ADMINISTRATIVE & SUPERINTENDENCE	3,857.73(A)	6,341.14	5,184.91	5,173.41	5,179.49
CARE OF ORCHARD	4,200.26(A)	16,177.57	15,417.79	17,639.77	15,715.84
CROP HARVEST	9,386.74	10,484.25	6,793.53	16,068.75	14,789.53
PACKING HOUSE AND SELLING EXPENSES	11,415.66	14,215.80	8,398.33	20,913.63	21,262.53
DEPRECIATION	681.50	1,912.31	2,607.55	2,827.79	2,970.09
NET OPERATING EXPENSES	$ 48,841.85	$ 73,462.82	$ 70,418.52	$ 89,465.48	$100,121.66
NET INCOME	$271,796.51	$246,609.54	$211,807.49	$242,820.83	$241,094.48

(A) - DECREASE OVER PRIOR YEAR DUE TO CHARGING COST ON CROP YEAR INSTEAD OF FISCAL YEAR BASIS.

IN 1955-56 AGRICULTURAL DEPARTMENT ALSO NEGOTIATED AIRPORT LEASE AT YEARLY RENTAL OF $3,971.30

SCHEDULE 11

OPERATING EXPENSES - 1957-1958

CITY DISTRIBUTION DIVISION - PUMPING STATION ACCOUNT

	LABOR	USE OF EQUIPMENT	MATERIAL & SUPPLIES	FUEL OR POWER	CONTRACTUAL SERVICE	TOTAL
STEAM PUMPS:						
CENTRAL	$ 1,678.22	$ 87.56	$ 34.94	$ 28,682.64	$ 50.42	$ 30,533.78
ELECTRICAL PUMPS:						
ALEMANY	$ 491.19	$ 5.70	$ 2.73	$	$	$ 499.62
BAY BRIDGE	1,459.33	77.84	222.70	5,962.16	72.93	7,794.96
BERNAL HEIGHTS	169.19	36.16	4.29	43.74		253.38
CANDLESTICK COVE	179.25	21.40				200.65
CROCKER AMAZON	347.05	34.34	20.30	118.40		520.09
FAIRVIEW	204.88	26.56		233.00		464.44
FOREST HILL	1,407.42	60.42	47.93	7,131.35	36.00	8,683.12
LAKE HONDA	243.76	27.36	6.15	667.78		945.05
LAKE MERCED	37,779.75	49.67	580.09	85,778.76	274.06	124,462.33
LELAND AVENUE	27.08					27.08
LINCOLN PARK	575.03	44.32	1.50	273.84	4.37	899.06
LONE MOUNTAIN	557.78	33.60	15.37	75.60		682.35
McLAREN	276.66	26.40		513.60		816.66
MT. DAVIDSON	325.60	23.26		412.80		761.66
NEWCOMB AVENUE	629.99	34.40	12.06	4,478.62	50.00	5,205.07
OLMSTEAD	206.61	20.80		532.20		759.61
PALO ALTO	210.02	26.56	55.50	60.20		352.28
POTRERO HEIGHTS	342.94	30.76	1.77	281.60		657.07
SUMMIT	1,319.11	65.50	11.72	3,064.88	1,194.76	5,655.97
SUNSET SOURCE	21.08					21.08
TWIN PEAKS	582.25	33.04	8.72	604.80		1,228.81
GENERAL	5,495.42	7.20	333.88		279.31	6,115.81
TOTAL - ELECTRICAL PUMPS	$52,851.39	$ 685.29	$ 1,324.71	$110,233.33	$1,911.43	$167,006.15
GRAND TOTAL	$54,529.61	$ 772.85	$ 1,359.65	$138,915.97	$1,961.85	$197,539.93

SCHEDULE NO. 12

OPERATING EXPENSES - 1957 - 1958

CITY DISTRIBUTION DIVISION

	LABOR	USE OF EQUIPMENT	MATERIAL & SUPPLIES	CONTRACTUAL SERVICE	MISCELLANEOUS	TOTAL
SOURCE OF SUPPLY:						
LAKE MERCED	$ 4,779.86	$ 42.00	$ 394.66	$ 221.53	$	$ 5,438.05
PURIFICATION:						
COLLEGE HILL	$ 101.89	$ 12.15	$ 654.34	$ 76.97		$ 845.35
LOMBARD STREET	63.07	1.60	49.62	2.82		117.11
LAKE MERCED	21.29	6.50	17.10			44.89
SUNSET RESERVOIR	23.81		425.94			449.75
UNIVERSITY MOUND	982.14	70.33	1,772.77	144.03		2,969.27
MERCED MANOR	28.01		170.73			198.74
SUTRO RESERVOIR	6.35					6.35
ALEMANY FLUORIDATION						.22
STERILIZATION OF MAINS	806.34	34.15	82.19	57.26		979.94
	$ 2,032.90	$ 124.73	$ 3,172.91	$ 281.08		$ 5,611.62
TRANSMISSION AND DISTRIBUTION						
CITY TRANSMISSION LINES	$ 3,524.38	$ 307.00	$ 112.20			$ 3,943.58
CITY RESERVOIRS	95,357.34	4,002.51	6,482.95	3,365.90		109,208.70
METER EXPENSE	86,904.36	4,041.63	41,825.02	32,594.21	55.97	165,421.19
STREET DEPARTMENT EXPENSE	41,405.68	1,394.16	48.61	863.62		43,712.07
SUPERINTENDENCE AND CLERICAL	97,967.15	663.79	408.51	7,858.20	2.27	106,899.92
OTHER SERVICES ON CONSUMERS' PREMISES	65,735.51	2,572.26	191.61	767.43		69,266.81
OPERATION OF BRYANT STREET YARD	23,006.76	1,083.18	7,093.24	13,942.18		45,125.36
MAINS - CANALS REPAIRS	206,465.39	10,556.63	19,870.84	19,037.27	761.64	256,691.77
REPAIRS AND SERVICES	185,624.41	12,139.62	27,175.92	19,697.10	5,210.00	249,847.05
REPAIRS OF MISCELLANEOUS EQUIPMENT	18,220.01	61.35	1,835.63	207.34		20,324.33
RELOCATE & REALIGN PIPE LINE					53,143.48	53,143.48
	$824,210.99	$ 36,822.13	$105,044.53	$ 98,333.25	$ 59,173.36	$1,123,584.26
TOTAL CITY DISTRIBUTION DIVISION	$831,023.75	$ 36,988.86	$108,612.10	$ 98,835.86	$ 59,173.36	$1,134,633.93

SCHEDULE NO. 13

OPERATING EXPENSES - 1957-1958
OUTSIDE OF SAN FRANCISCO

SOURCE OF SUPPLY	LABOR	USE OF EQUIPMENT	MATERIALS & SUPPLIES	CONTRACTUAL SERVICES	MISCELLANEOUS	TOTAL
SURFACE SOURCES:						
SAN ANDRES RESERVOIR	$29,941.32	$ 1,299.43	$ 3,354.69	$ 552.61	$	$ 35,148.05
CRYSTAL SPRINGS RESERVOIR	70,621.59	6,614.93	12,472.42	2,889.74		92,598.68
PILARCITOS RESERVOIR	45,850.82	5,559.44	4,433.58	2,919.40		55,763.24
CALAVERAS RESERVOIR	23,533.93	813.02	1,104.65	796.45	19.58	26,267.63
TOTAL	$169,947.66	$ 11,286.82	$ 21,365.34	$ 7,158.20	19.58	$ 209,777.60
GROUND SOURCES:						
SUNOL FILTER BEDS	$ 14,082.89	$ 376.17	$ 913.91	$ 1,775.56	$ 480.76	$ 17,629.29
PLEASANTON WELLS	1,224.75	177.25	35.06	645.37		2,082.43
TOTAL	$ 15,307.64	$ 553.42	$ 948.97	$ 2,420.93	$ 480.76	$ 19,711.72
SUPPLY LINES:						
BAY DIVISION PIPE LINES NOS. 1 & 2 (PENINSULA DIV.)	$26,311.40	$ 3,084.35	$ 1,353.28	$ 489.89	$ 5.00	$ 31,243.92
" " " " " 3 (PENINSULA DIV.)	5,144.87	1,684.95	311.90	81.84		7,223.56
STONE DAM AQUEDUCT	10,757.57	742.67	609.10	211.67		12,321.01
NILES - IRVINGTON PIPE LINE	1,163.77	357.20	24.14	-0-	3.20	1,548.31
BAY DIVISION PIPE LINES NOS.1 & 2 (ALAMEDA DIVISION)	9,065.78	1,600.69	764.05	1,393.38		12,823.90
" " " " NO. 3 (ALAMEDA DIVISION)	588.72	810.84	20.82	4.48		1,424.86
OTHER SUPPLY LINES & AQUEDUCTS (PENINSULA DIVISION)	6,297.75	215.59	2,338.25	372.91		9,224.50
" " " " (ALAMEDA DIVISION)	11,037.60	670.36	630.66	386.87		12,725.49
CATHODIC PROTECTION			7.47	262.87		270.34
TOTAL	$70,367.46	$ 9,166.65	$ 6,059.67	$ 3,203.91	$ 8.20	$ 88,805.89
GENERAL EXPENSES:						
PENINSULA SYSTEM	$112,907.52	$ 2,708.18	$ 10,710.91	$. 4,553.16		$130,879.77
ALAMEDA SYSTEM	38,345.22	2,774.88	3,871.84	1,592.79	1.00	46,585.73
TOTAL	$151,252.74	$ 5,483.06	$ 14,582.75	$ 6,145.95	$ 1.00	$177,465.50
TOTAL SOURCE OF SUPPLY	$406,875.50	$ 26,489.95	$ 42,956.73	$ 18,928.99	$ 509.54	$495.760.71

SCHEDULE NO. 14
OPERATING EXPENSES - 1957-1958
OUTSIDE OF SAN FRANCISCO

PUMPING STATIONS	LABOR	USE OF EQUIPMENT	MATERIALS & SUPPLIES	FUEL OR POWER	CONTRACTUAL SERVICES	MISCELLANEOUS	TOTAL
BADEN PUMP	$ 2,001.19	$ 41.39	$	$ 30.29	$ 25.20		$ 2,098.07
CRYSTAL SPRINGS PUMP	35,035.45	215.31	1,412.59	78,721.64	243.52		115,628.51
PLEASANTON PUMP	113.00	18.00		1,915.25	974.50		3,020.75
PLEASANTON TOWNSHIP WATER DISTRICT	84.78	5.37	1.00	1,648.89			1,740.04
IRVINGTON PUMP	7,210.17	215.65	210.42	15,626.96	2.90		23,266.10
BAY DIVISION PUMP				603.71			603.71
TOTAL OUTSIDE PUMPING EXPENSE	$44,444.59	$ 495.72	$ 1,624.01	$98,546.74	$ 1,246.12		$146,357.18
PURIFICATION							
CRYSTAL SPRINGS FLUORIDATION	$ 1,336.31	$ 123.52	$14,224.87		$ 7.39	$	$ 15,692.09
CRYSTAL SPRINGS CHLORINATION	3,447.04	543.83	14,275.78		289.16		18,555.81
MILLBRAE PURIFICATION	1,103.04	1,282.64	348.01		184.34	5.29	2,923.32
PILARCITOS RESERVOIR					13.06		13.06
SAN ANDRES	2,138.55	218.08	8,496.27		2,079.25		12,932.15
SAN MATEO SCREEN TANK			48.26				48.26
PORTABLE UNIT	471.27	9.18	57.34		118.90		656.69
NO. SAN ANDRES FLUORIDATION	644.48	39.00	13,025.75		575.74		14,284.97
NO. SAN ANDRES FLUORIDATION NO. 1	349.65	23.85	2,059.04		2.20		2,434.74
ALUM TREATMENT	519.13	33.74	25,687.63		25.33		26,265.83
CALAVERAS	1,998.44	347.49	10,923.53		619.30		13,888.76
SUNOL	537.00	2.25	998.56		8.99		1,546.80
IRVINGTON PORTAL	605.51	142.50	547.01		185.83		1,480.85
Hetch Hetchy			107.78				107.78
TESLA PORTAL	1,039.85	1,166.11	21,643.49		1,855.45		25,704.90
ROCK RIVER LIME PLANT			14,034.86		1,226.22		15,261.08
MILLBRAE LABORATORY	61,270.27	2,104.77	7,257.16		2,700.73	5.00	73,337.93
TOTAL OUTSIDE PURIFICATION EXP.	$ 75,460.54	$ 6,036.96	$133,735.34		$ 9,891.89	$ 10.29	$225,135.02
TRANSMISSION AND DISTRIBUTION: PENINSULA DIVISION:							
ALAMEDA TRANSMISSION LINE	$ 11,856.14	$ 877.11	$ 392.20		$ 874.39		$ 13,999.84
ALAMEDA SUPPLY LINE			1,106.30				1,106.30
CRYSTAL SPRINGS TO SAN ANDRES	18,196.40	386.00	3,010.78		1,107.66		22,700.84
CRYSTAL SPRINGS TO UNIVERSITY MOUND	8,554.53	297.10	495.74		251.83		9,599.20
SAN ANDRES TRANSMISSION LINE NO.1	3,161.46	120.75	81.71		138.59		3,502.51
SAN ANDRES TRANSMISSION LINE No. 2	6,973.47	144.82	286.78		123.80		7,528.87
SAN ANDRES TRANSMISSION LINE NO. 3	5,941.05	228.82	350.51		135.72		6,656.10
CRYSTAL SPRINGS T/L TO UNIV.MD.No.2	8,089.42	336.40	485.18		325.78		9,236.78
PALO ALTO PIPE LINE	977.12	467.52			1.60		1,446.24
SUNSET TRANSMISSION LINE	9,119.39	423.24	835.99		224.71		10,603.33
METER DEPARTMENT EXPENSE	17,070.08	2,363.32	4,688.89		206.28	- 127.03	24,201.54
MAIN-CANALS REPAIRS	10.20		8.26				18.46
	$ 89,949.26	$ 5,645.08	$ 11,742.34		$ 3,390.36	$-127.03	$110,600.01
ALAMEDA DIVISION:							
NILES REGULATING RESERVOIR	$ 6,258.85	$ 77.90	$ 258.99		$ 193.40		$ 6,789.14
PLEASANTON TRANSMISSION LINE	60.12						60.12
METER DEPARTMENT EXPENSE	326.14		.05		2.20		328.39
	$ 6,645.11	$ 77.90	$ 259.04		$ 195.60		$ 7,177.65
TOTAL OF TRANSMISSION AND DISTRIBUTION EXPENSES	$ 96,594.37	$ 5,722.98	$12,001.38		$ 3,585.96	$-127.03	$117,777.66
TOTAL OUTSIDE SAN FRANCISCO	$216,499.50	$12,255.66	$147,360.73	$98,546.74	$14,723.97	$-116.74	$489,269.86

CHARGES OF NON-PAYING MUNICIPAL ACCOUNTS
FOR THE FISCAL YEARS 1956-1957 AND 1957-1958

	1956-1957	1957-1958	INCREASE	DECREASE
Hydrants	$ 260,643.40	$ 261,712.00	$ 1,068.60	$
Fire Boats	117.00	100.36		16.64
Fire Department	27,227.47	25,756.44		1,471.03
Police Department	4,284.77	4,453.61	168.84	
Parks and Playgrounds	173,726.79	174,266.18	539.39	
Golden Gate Park - Proper	45,701.20	45,544.36		156.84
Libraries	2,527.53	2,308.37		219.16
Opera House & War Memorial Bldg.	2,055.36	2,224.26	168.90	
Memorial Museum	523.48	581.58	58.10	
Palace of the Legion of Honor	311.14	342.28	31.14	
Aquarium	2,785.26	2,671.68		113.58
Youth Guidance Center	4,075.02	4,768.74	693.72	
Adult Guidance Center	462.72	481.47	18.75	
Purchaser of Supplies	1,591.58	1,543.94		47.64
Exposition Auditorium	2,337.66	2,183.76		153.90
Retirement Board	221.83	253.88	32.05	
City Planning Commission	156.13	126.08		30.05
Dept. of Public Works (Public Bldgs.)	87,502.15	89,445.66	1,943.51	
Street Cleaning	11,004.06	10,686.53		317.53
Street Work & Sewers	271.05	278.85	7.80	
Park Areas & Pub. Sts.	6,187.83	6,072.41		115.42
Sidewalk Repairs	53.44	60.92	7.48	
Bldg. Repairs		1.04	1.04	
Dept. of Electricity	238.84	284.17	45.33	
Dept. of Public Health	21,525.48	22,253.67	728.19	
" " " "	1,351.83	1,370.44	18.61	
Relief Home	16,190.09	16,815.40	625.31	
Public Welfare Dept.	821.13*	328.75		499.38
Registrar of Voters	68.47	75.20	6.73	
Municipal Railway	9,292.56	8,465.46		827.10
Track Repairs	12.38	10.31		2.07
Disaster Council	70.58	159.62	89.04	
TOTAL San Francisco	$ 683,345.23	$ 685,627.42		
NET Increase San Francisco			$ 2,282.19	
County Jail	$ 30,715.60	$ 34,858.06	$ 4,142.46	
Hassler Health Farm	5,844.12*	6,159.82	315.70	
Municipal Airport	11,548.78	10,813.99		734.79
Public Welfare		1,127.23	1,127.23	
TOTAL Suburban	$ 48,108.50	$ 52,959.10		
NET Increase Suburban			$ 4,850.60	
GRAND TOTAL	$ 731,453.73	$ 738,586.52		
TOTAL NET INCREASE			$ 7,132.79	

*977-6160 Changed from Hassler Health Farm to Public Welfare Dept. 12/12/56

CHARGES OF PAYING MUNICIPAL ACCOUNTS

FOR THE FISCAL YEARS OF 1956-1957 AND 1957-1958

	1956-1957	1957-1958	INCREASE
SCHOOLS	$ 62,168.06	$ 65,489.17	$ 3,321.11
CHILD CARE CENTERS	1,002.53	1,194.04	191.51
BROOKS HALL*		152.14	152.14
TOTALS	$ 63,170.59	$ 66,835.35	$ 3,644.76

*Began April 1958

BOND REDEMPTION and INTEREST

WATER DEPARTMENT

	Redemption			Interest			Total Redemption plus Interest
	Spring Valley 1928	H.H. Water Service 1947	Total	Spring Valley 1928	H.H. Water Service 1947	Total	
1958-59	$ 1,000,000	$ 924,505	$ 1,924,505	$ 540,000	$ 130,076.29	$ 670,076.29	$ 2,594,581.29
1959-60	1,000,000	924,505	1,924,505	495,000	114,591.59	609,591.59	2,534,096.59
1960-61	1,000,000	924,505	1,924,505	450,000	99,286.02	549,286.02	2,473,791.02
1961-62	1,000,000	924,505	1,924,505	405,000	84,244.68	489,244.68	2,413,749.68
1962-63	1,000,000	924,505	1,924,505	360,000	68,688.91	428,688.91	2,353,193.91
1963-64	1,000,000	924,505	1,924,505	315,000	52,618.70	367,618.70	2,292,123.70
1964-65	1,000,000	920,328	1,920,328	270,000	36,585.48	306,585.48	2,226,913.48
1965-66	1,000,000	225,328	1,225,328	225,000	23,676.00	248,676.00	1,474,004.00
1966-67	1,000,000	132,682	1,132,682	180,000	15,174.62	195,174.62	1,327,856.62
1967-68	1,000,000	132,682	1,132,682	135,000	7,994.39	142,994.39	1,275,676.39
1968-69	1,000,000	91,882	1,091,882	90,000	814.25	90,814.25	1,182,696.25
1969-70	1,000,000		1,000,000	45,000		45,000.00	1,045,000.00
Due on 6/30/58	$12,000,000	$7,049,932	$19,049,932	$3,510,000	$633,750.93	$4,143,750.93	$23,193,682.93

Original amounts and interest:

$41,000,000	$12,500,000	$53,500,000	4½%	1¼% to 6%	

APPENDIX TO

REPORT OF SAN FRANCISCO WATER DEPARTMENT

Table	Description
1	San Francisco Rainfall
2	Rainfall - Watershed Stations
3	No Table No. 3
4	Reservoir Storage
5	Water Drawn from Hetch Hetchy and Auxiliary Sources
6	Source of Water Conveyed to the West Side of San Francisco Bay
7	Water Delivered Through Pipelines
8	Water Delivered at the Consumer's Meters
9	Average Daily Consumption Since 1865
10	Average Daily Consumption by Districts
11	Peak Day Consumption by Districts
12	Meters in Service, San Francisco
13	Meters in Service, Suburban District
14	Official Meter Tests
15	Unit Cost for Meter Maintenance
16	Unit Cost of Meter Installation
17	Unit Cost of Service Connections
18	Street Main Taps and Service Connection Record
19	Comparative Pumping Costs
20	Record of Consumers' Inquiries
21	Record of No Water, Noise, etc.
22	Record of Poor Supply
23	Transmission Mains
24	Pipe Records, City Distribution System
25	Valve Records, City Distribution System
26	Contract Data

TABLE NO. 1

SAN FRANCISCO RAINFALL
at
Federal Office Building
(U.S. Weather Bureau Records)

Month	Season 1954-55 inches	Season 1955-56 inches	Season 1956-57 inches	Season 1957-58 inches	Normal 1957-58 inches
July	0.03	.02	T	0.01	0.01
August	.20	T	.01	T	0.01
September	T	.02	.33	1.46	0.13
October	0.24	.03	1.14	3.46	1.07
November	2.55	2.38	.04	1.13	2.27
December	5.67	11.47	.37	3.60	4.07
January	4.05	8.72	2.84	4.38	4.03
February	1.18	2.03	3.58	7.78	3.91
March	0.29	0.12	2.39	8.22	2.78
April	1.49	1.68	1.09	5.47	1.49
May	.04	.68	3.19	0.88	0.59
June	T	.02	.06	0.09	0.15
TOTALS	15.75	27.17	15.04	36.48	20.51

1957-58 Season 177.9% of normal

TABLE NO. 2

RAINFALL - WATERSHED STATIONS
(Water Department Records)

Station	Season 1954-55 inches	Season 1955-56 inches	Season 1956-57 inches	Season 1957-58 inches	Normal 1957-58 inches
San Francisco	15.75	27.17	15.04	36.48	20.51
Pilarcitos	28.40	58.30	38.78	66.58	45.61
San Andreas	22.06	43.03	27.44	54.11	37.25
Crystal Springs Upper	19.64	34.09	22.03	46.20	31.76
Crystal Springs Lower	17.66	36.37	23.63	42.68	27.78
Crystal Springs Cottage	20.07	31.74	17.88	40.49	26.91
Lake Merced	16.20	30.25	18.47	38.60	21.27
Pleasanton Pumps	12.98	21.19	14.10	27.28	20.86
Calaveras	17.18	28.58	16.94	32.25	22.35
Sunol	14.98	24.37	13.98	28.27	20.50
Niles	14.28	23.10	13.86	28.04	19.65
Hetch Hetchy	25.78	52.23	29.09	44.10	34.53
Lake Eleanor	30.43	59.73	35.66	44.76	41.71
Moccasin	20.81	38.58	24.07	38.68	27.26

TABLE NO. 4

RESERVOIR STORAGE
(Exclusive of Hetch Hetchy Sources)

MILLION GALLONS

	1954-55		1955-56		1956-57		1957-58	
	Max. July 1	Min. Dec. 1	Max. Jan. 27	Min. Nov. 4	Max. July 1	Min. Feb.6	Max. April 3	Min. Dec. 14
Calaveras	21,664	15,739	32,658	16,210	28,676	17,310	34,245	15,766
Crystal Springs	17,485	16,522	19,705	17,384	17,249	16,047	21,466	16,256
San Andreas	5,740	5,561	6,055	5,886	5,007	3,825	6,239	4,731
Pilarcitos	834	556	975	169	616	449	981	687
Lake Merced	2,311	2,230	2,559	2,192	2,492	2,444	2,636	2,319
City Reservoirs	259	282	287	307	311	313	325	296
TOTALS	48,293	40,890	62,239	41,978	54,351	40,388	65,892	40,055

TABLE NO. 5

WATER DRAWN FROM HETCH HETCHY AND AUXILIARY SOURCES

MILLION GALLONS

	1954-55	1955-56	1956-57	1957-58
Hetch Hetchy Supply	39,966	33,083	36,600	30,366
Pleasanton Wells and Sunol Filters*	none	156	133	2,242
TOTALS	39,966	33,249	36,733	32,608

*No water was received from Pleasanton Wells subsequent to April 1949

TABLE NO. 6

SOURCE OF WATER CONVEYED
TO THE WEST SIDE OF SAN FRANCISCO BAY
YEARLY AVERAGE, MILLION GALLONS DAILY

	1954-55	1955-56	1956-57	1957-58
Pleasanton Wells	None	None	None	None
Sunol Filters	None	0.5	0.4	6.1
Calaveras Reservoir	16.4	25.8	30.7	17.8
Hetch Hetchy Water Supply	105.0	85.5	93.6	75.7
TOTALS	121.4	111.8	124.7	99.6

TABLE NO. 7

WATER DELIVERED THROUGH PIPELINES

Water Transported into San Francisco Consumption Area(1957-58)

San Andreas 54" Pipeline	34.5	M.G.D.
Baden-Merced Branch 30" P/L	5.9	" " "
Crystal Springs 44" P/L	8.3	" " "
" " 60" "	20.5	" " "
Sunset 60" "	24.8	" " "
Total San Francisco Consumption Area	94.0	M.G.D.

Water Transported to storage:

Crystal Springs to San Andreas	27.1	M.G.D.
Bay Division to Crystal Springs	80.0	M.G.D.

TABLE NO. 8

WATER DELIVERED
AT THE CONSUMERS METERS
SAN FRANCISCO DISTRICT

	1954-55	1955-56	1956-57	1957-58
Average Active Accounts	150,504	151,457	152,353	153,085
Number on June 30	150,860	152,053	152,653	153,516
Metered Delivery (M.C.F.)				
Residential	1,399.4	1,397.0	1,391.1	1,425.2
Com'l & Ind'l	1,939.5	1,961.5	1,958.2	1,972.0
Municipal - Actual	20.3	20.5	21.2	22.7
Municipal - Comparisons	257.1	255.2	249.1	224.8
Total (M.C.F.)	3,616.3	3,634.2	3,619.6	3,644.7
Average (M.G.D.)	74.3	74.7	74.4	74.9

SUBURBAN DISTRICT

	1954-55	1955-56	1956-57	1957-58
Average Active Accounts	740	731	695	653
Number on June 30	738	724	666	641
Metered Delivery (M.C.F.)				
Regular Rates	114.1	120.0	116.5	122.6
Civil Div'n for Resale	1,075.5	1,209.4	1,311.0	1,453.8
Private Utilities "	869.7	924.4	947.6	979.6
S.F. Municipal-Comparison*	-	-	-	29.3
Total (M.C.F.)	2,059.3	2,253.8	2,375.1	2,585.3
Average (M.G.D.)	42.3	46.3	48.8	53.1

TOTAL SYSTEM

	1954-55	1955-56	1956-57	1957-58
Metered Delivery (M.C.F.)	5,675.6	5,888.0	5,994.7	6,230.0
Average (M.G.D.)	116.6	121.0	123.2	128.0

*San Francisco Municipal Accounts in Suburban area now shown separately

TABLE NO. 9

AVERAGE DAILY CONSUMPTION SINCE 1865
CONSUMPTION IN MILLION GALLONS PER DAY

Venturi Meter Records

YEAR	M.G.D.	YEAR	M.G.D.	YEAR	M.G.D.	YEAR	M.G.D.
1865	2.4	1885	17.0	1905	34.9	1925	42.6
1870	6.0	1890	20.4	1910	35.6	1928	50.1
1875	11.7	1895	19.9	1915	42.6	1929	52.1
1880	12.7	1900	25.5	1920	36.2	1930	52.1

Note: At noon on March 3, 1930 the San Francisco Water Department acquired title to the operative properties of the Spring Valley Water Company.

Year	San Francisco	Sub-urban	Total System	Max. Day	Min. Day	Max. Month	Min. Month
1930-31	49.2	3.1	52.3	66.7	41.3	57.8	47.0
1931-32	49.3	2.8	52.1	65.6	39.6	59.4	47.5
1932-33	46.4	2.7	49.1	60.4	39.9	54.3	44.6
1933-34	47.3	2.6	49.9	64.3	39.1	53.7	45.1
1934-35	48.1	2.4	50.5	65.4	41.3	58.1	46.2
1935-36	52.3	2.5	54.8	68.0	43.0	62.1	50.3
1936-37	55.1	3.4	58.5	70.7	45.7	63.8	51.8
1937-38	53.3	5.0	58.3	72.4	46.7	65.4	53.4
1938-39	56.9	6.4	63.3	84.6	48.5	77.5	54.8
1939-40	59.6	9.0	68.6	89.5	51.6	76.6	60.9
1940-41	60.7	7.3	68.0	90.0	52.0	77.9	60.6
1941-42	63.5	7.7	71.2	94.5	53.1	85.7	61.7
1942-43	69.2	8.6	77.8	106.9	60.2	92.3	68.6
1943-44	76.1	11.4	87.5	109.9	70.4	101.1	76.8
1944-45	79.0	17.9	96.9	134.9	74.7	116.5	85.2
1945-46	83.7	17.2	100.9	131.9	72.9	115.3	88.0
1946-47	83.3	18.6	101.9	135.6	76.5	117.0	86.2
1947-48	81.3	19.7	101.0	138.3	74.2	122.6	88.0
1948-49	83.3	19.9	103.2	138.3	73.3	124.4	86.4
1949-50	83.1	19.6	102.7	139.1	73.8	120.7	88.0
1950-51	82.8	23.0	105.8	147.7	77.3	126.1	88.6
1951-52	82.9	26.2	109.1	154.0	77.6	130.8	92.1
1952-53	88.5	29.9	118.4	166.8	83.7	140.2	99.4
1953-54	89.7	35.2	124.9	197.0	88.0	157.3	107.2
1954-55	91.1	44.6	135.7	190.0	92.5	166.4	110.3
1955-56	91.3	47.8	139.1	217.5	83.0	176.7	112.8
1956-57	89.9	53.1	143.0	224.1	92.7	179.7	112.7
1957-58	94.0	46.5	140.5	211.3	85.3	185.8	111.6

NOTE: Water Department deliveries for consumption in the major inhabited portion of the northerly 47 square miles of San Mateo County are included in the figures in column headed "San Francisco" and are not included in the figures in column headed "Suburban" in Table No. 9.

TABLE NO. 10

AVERAGE DAILY CONSUMPTION BY DISTRICTS

GALLONS

District	1957-58	1956-57	Increase + or Decrease -	% Incr. or Decre.
Summit & Forest Hill	909,534	787,759	+ 121,775	+ 15.5
Stanford Heights	3,526,058	3,228,247	+ 297,811	+ 9.2
Sutro	8,546,858	7,895,575	+ 651,283	+ 8.2
Sunset	42,767,060	40,189,038	+ 2,578,022	+ 6.4
College Hill	7,147,268	7,280,644	- 133,376	- 1.8
University Mound	28,799,060	27,898,118	+ 900,942	+ 3.2
Merced Manor*	2,330,266	2,616,792	- 286,526	- 10.9
Total City	94,026,104	89,896,173	+ 4,129,931	+ 4.6
Suburban	46,514,800	53,066,917	- 6,552,117	- 12.3
Total Entire System	140,540,904	142,963,090	- 2,422,186	- 1.7

*Merced Manor consumption not measured directly. Any inaccuracies would reflect in suburban and College Hill consumption.

TABLE NO. 11

PEAK DAY CONSUMPTION BY DISTRICTS

GALLONS

District	1957-58	1956-57	1955-56
Forest Hill	1,571,000	1,701,000	1,904,000
Stanford Heights	5,575,000	6,846,000	11,950,000
Sutro	12,879,000	12,093,000	10,212,000
Sunset	56,294,000	59,259,000	55,247,000
College Hill	10,777,000	11,421,000	11,573,000
University Mound	45,473,000	38,687,000	42,401,000
Merced Manor	4,213,000	6,332,000	5,074,000
Total City	121,715,000	123,735,000	115,489,000
Suburban	95,268,000	100,380,000	102,054,000
Total Entire System	211,343,000	224,115,000	217,496,000

TABLE NO. 12
METERS - NUMBER AND SIZE IN SERVICE
SAN FRANCISCO DISTRICT AS OF JUNE 30, 1958
(Compiled from Audit Sheets - June and July)

CLASS OF CONSUMERS	5/8"	3/4"	1"	$1\frac{1}{2}$"	2"	3"	4"	6"	8"	12"	TOTAL
Revenue Producing:											
Commercial	19,971	1,055	2,327	2,421	3,998	6	49	337	331	1	30,496
Residential	122,193	907	1,180	266	14						124,560
Docks & Ship.	152	12	34	56	99	2	1	1	7	2	366
TOTAL	142,316	1,974	3,541	2,743	4,111	8	50	338	338	3	155,422
Non-Revenue Producing:											
Commercial	1,311	18	38	27	34	1	2	9	1		1,441
Residential	872	3	2								877
Docks & Ship.	2				29						31
TOTAL	2,185	21	40	27	63	1	2	9	1	0	2,349
TOTALS:											
Commercial	21,282	1,073	2,365	2,448	4,032	7	51	346	332	1	31,937
Residential	123,065	910	1,182	266	14						125,437
Docks & Ship.	154	12	34	56	128	2	1	1	7	2	397
	144,501	1,995	3,581	2,770	4,174	9	52	347	339	3	157,771

Total = 741

Total meters in service as of June 30, 1958		157,771
Less: Extra meters in 966 Batteries - (2821 meters - 966)	1,855	
Extra meters in 30 Consolidations (81 meters - 30)	51	
Non-Revenue meters (temporarily shut-off)	2,349	4,255
Number of Active Accounts as of June 30, 1958		153,516

NOTE: The above meter count includes 669 Automatic Sprinklers for fire purposes. At Dock & Shipping Office Portable meters used on hydrants as needed (not included above) 13-$1\frac{1}{2}$", 28-2" meters. At Union Plant of Bethlehem Shipbuilding Corp. 8-$1\frac{1}{2}$" meters.

PREVIOUS RECORDS	1953-54	1954-55	1955-56	1956-57	1957-58
Total Meters	154,176	154,711	156,058	156,870	157,771
Increase	1,161	535	1,347	812	901
Idle Meters	2,301	2,059	2,165	2,374	2,349

TABLE NO. 13
METERS - NUMBER AND SIZE IN SERVICE
SUBURAN DISTRICT AS OF JUNE 30, 1958
(Compiled from Audit Sheets - June and July)

CLASS OF CONSUMERS	5/8"	3/4"	1"	$1\frac{1}{2}$"	2"	3"	4"	6"	8"	10"	TOTAL
Revenue Producing:											
Regular Rates	402	17	41	21	257		20	93	65		916
Airport Use	11	3	9	8	18		1	1	12		63
TOTAL	413	20	50	29	275		21	94	77		979
Non-Revenue Producing:											
Regular Rates	11				2					1	14
Airport Use					7						7
TOTAL	11				9					1	21
TOTALS											
Regular Rates	413	17	41	21	259		20	93	65	1	930
Airport Use	11	3	9	8	25		1	1	12		70
TOTAL	424	20	50	29	284		21	94	77	1	1,000

Total = 194 meters

Total Meters in service as of June 30, 1958		1,000
Less: Extra meters in 83 Batteries and Consolidations- (421 meters - 83)	338	
Non-Revenue meters (temporarily shut-off)	21	359
Number of Active Suburban Accounts as of June 30, 1958		641

NOTE: The above meter count includes 5 Automatic Sprinklers for fire purposes.

PREVIOUS RECORDS:	1953-54	1954-55	1955-56	1956-57	1957-58
Total Meters	1073	1071	1064	1028	1000
Increase	-7	-2	-7	-36	-28
Idle Meters	10	11	11	19	21

TABLE NO. 14

OFFICIAL METER TESTS

During Fiscal Year Ending June 30, 1958

PERCENTAGE OF VARIATION

Percent-age	0	.2	.5	1	1.5	2	2.5	3	Number Tested Total	Number Tested Ratio
Fast				1					1	25%
Slow				1		1			2	50%
O.K.	1								1	25%
Total	1			2		1			4	100%

PREVIOUS TOTALS

Year	0	.2	.5	1	1.5	2	2.5	3	Total
1954	6	2	2	4	2	1	1	1	19
1955	1		4	3	1		1	1	11
1956			2			1			3
1957	1		4	3					8

Refunds 1957-58 Account of over-registration - $0.00
Increases " " " " under-registration- $0.00

TABLE NO. 15

UNIT COST FOR METER MAINTENANCE

IN SAN FRANCISCO

Year	Meters in use	Total Cost	Cost per Meter	Labor Cost per Meter	Other Cost per Meter
1953-54	154,176	$163,556.72	$1.06	$0.394	$0.667
1954-55	154,711	128,442.89	0.83	0.431	0.399
1955-56	156,058	133,630.88	0.86	0.510	0.346
1956-57	156,870	136,237.35	0.87	0.493	0.373
1957-58	157,771	165,421.19	1.05	0.757	0.291

TABLE NO. 16

UNIT COST OF METER INSTALLATION

IN SAN FRANCISCO

	1954-55	1955-56	1956-57	1957-58
Meters Set	1,853	1,925	1,687	1,879
Percent 3/4" and smaller	79.1	79.2	75.0	76.0
Labor	$ 4.37	$ 8.05	$ 9.59	$10.36
Supervision	0.83	0.32	0.32	0.32
Meter	27.88	22.73	38.15	31.86
Material	6.75	4.66	3.08	6.22
Equipment	0.17	0.19	0.23	0.33
Paving	1.49	1.44	1.40	1.09
Miscellaneous	0.17	-	-	-
	$41.66	$37.39	$52.77	$50.18

TABLE NO. 17

UNIT COST OF SERVICE CONNECTIONS

IN SAN FRANCISCO

	1954-55	1955-56	1956-57	1957-58
Services installed	2,818	2,352	2,405	2,857
Percent 3/4" installed	64.3	48.2	63.8	62.7
Labor	$38.27	$50.94	$56.90	$51.70
Supervision	6.71	1.80	1.89	1.73
Material	14.01	17.20	24.24	21.04
Equipment	3.76	4.26	4.26	3.78
Paving	10.81	15.98	16.67	12.70
Miscellaneous	0.54	-	-	-
	$74.10	$90.18	$103.96	$90.95

TABLE NO. 18

STREET MAIN TAPS AND SERVICE CONNECTIONS RECORD

San Francisco District June 30, 1958

TAPS ON STREET MAINS

	Wharf	3/4"	1"	$1\frac{1}{2}$"	2"	3"	4"	6"	8"	12"	16"	TOTALS
June 30, 1957	318	160,781	7,690	3,938	2,720	839	182	460	342	17	2	177,589
ADD 1957-58	41	139	668	161	65	19	12	23	19	0	0	1,147
June 30, 1958	359	160,920	8,358	4,099	2,785	858	194	483	361	17	2	178,736

SERVICE CONNECTIONS

ADD	Services connected to street mains, as above	178,736
	"Distributors", being 1 or more additional meter connections to service pipes	3,869
	TOTAL connections of record	182,605
	Disconnected services	26,740
	Net metered live services consisting of 155,422 active meters; less 1,906 extra meters in batteries, plus 2,349 services temporarily shut off.	155,865

Previous Records;	1954-55	1955-56	1956-57
Active	152,652	153,893	154,496
Shut-Off	2,059	2,165	2,374
TOTALS	154,711	156,058	156,870
Less extra battery meters	1,792	1,840	1,843
NET	152,919	154,218	155,027

SERVICE INSTALLATIONS

Fiscal Year 1957-58

DISTRICT	Taps	Distributors	Totals
Richmond District	97	10	107
Sunset "	345	127	472
North Market & Western Addition	141	47	188
South Market & Twin Peaks	539	169	708
Waterfront	41	0	41
TOTALS	1,163	353	1,516
Previous Years			
1954-55	1,234	327	1,561
1955-56	1,091	375	1,466
1956-57	851	263	1,114

AUTOMATIC SPRINKLER INSTALLATIONS

October 26, 1932 to June 30, 1958

SIZE	1932-55	1955-56	1956-57	1957-58	Total	Installed Prior to 10/26/32	GRAND TOTAL
4-inch	34	3	1	4	42		
6- "	181	18	23	21	243		
8- "	222	10	9	13	254		
12- "	9	0	0	0	9		
TOTALS	446	31	33	38	548	163	711

TABLE NO. 19

COMPARATIVE PUMPING COSTS

SAN ANDREAS PUMP	1954-55	1955-56	1956-57	1957-58
Water Pumped, Gallons	12,998,928,000	11,103,656,000	12,120,946,000	9,871,835,000
Electric Power, KWH	13,180,800	11,315,200	12,550,400	10,176,000
Power Cost	$ 112,689.18	$ 85,272.97	$ 94,481.09	$ 78,721.64
Labor Cost	25,926.65	27,847.94	30,320.90	35,278.97
Miscellaneous	3,431.13	708.21	690.92	1,627.90
TOTALS	$ 142,046.96	$ 113,829.12	$ 125,492.91	$ 115,628.51
Cost per Million Gallons	$ 10.93	$ 10.25	$ 10.35	$ 11.71
" " " "per ft.of lift	0.0495	0.0466	0.0469	0.0536

LAKE MERCED PUMP	1954-55	1955-56	1956-57	1957-58
Water Pumped, Gallons		7,347,900,000	8,723,560,000	9,035,800,000
Electric Power, KWH		7,914,000	11,320,580	11,636,214
Power Cost		$ 65,735.68	$ 87,720.08	$ 85,778.76
Labor Cost		17,100.44	33,775.83	38,053.81
Miscellaneous		630.14	495.81	629.76
TOTALS		$ 83,466.26	$ 121,991.72	$ 124,462.33
Cost per Million Gallons		$ 11.36	$ 11.78	$ 13.77

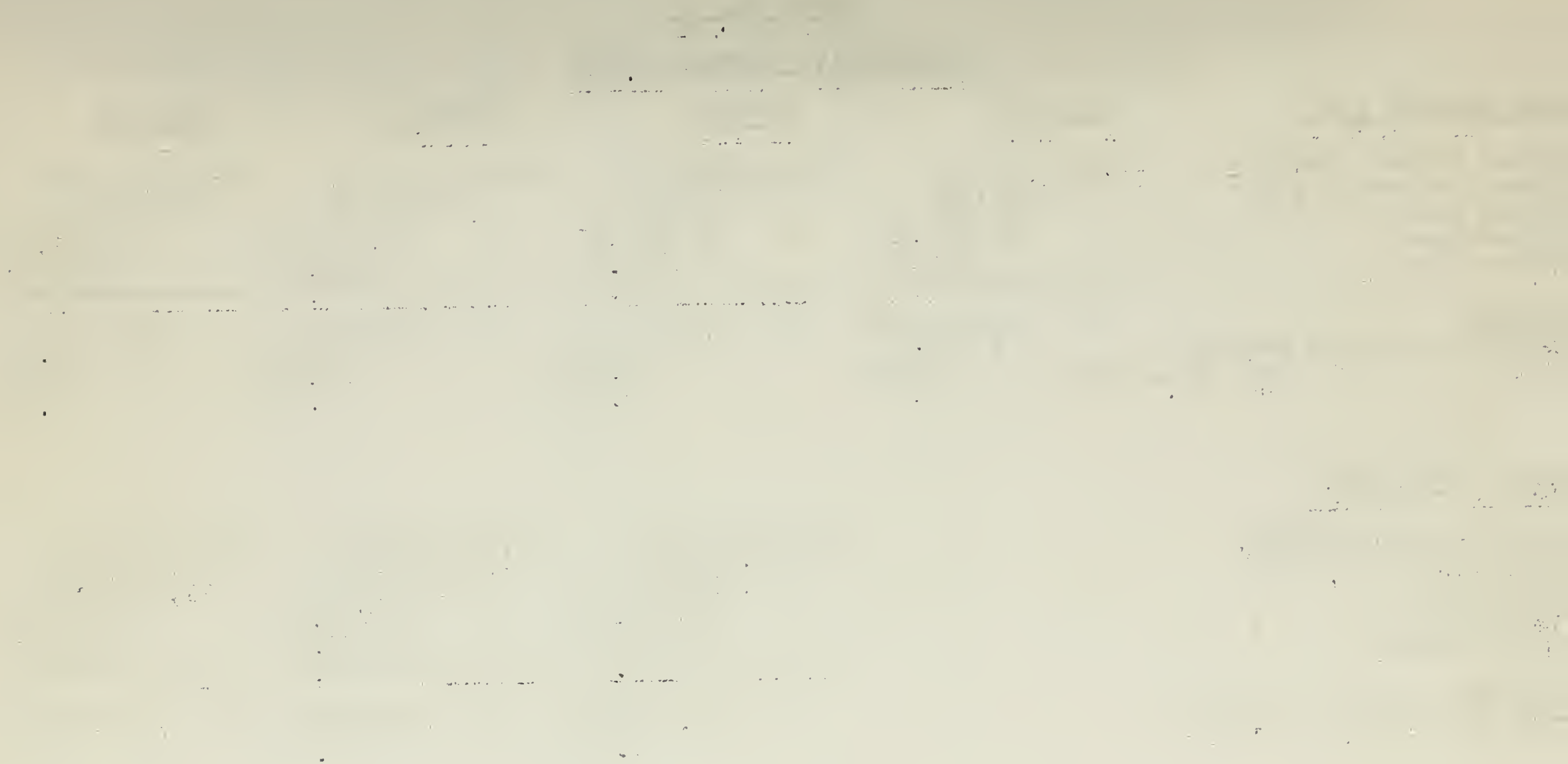


TABLE NO. 20
RECORD OF CONSUMERS' INQUIRIES
COMPARISON OF INQUIRIES RECEIVED BY DISTRICTS

	1954-55	1955-56	1956-57	1957-58
Stanford Heights	19	44	14	53
Sutro Reservoir	17	70	35	87
Sunset Reservoir	118	262	119	220
Potrero Heights	0	1	0	2
Sunset Lombard	0	0	3	7
College Hill	25	66	34	68
Merced Manor	7	12	14	55
University Mound	16	56	37	68
Forest Hill	0	2	5	2
Presido Heights	0	10	1	0
Summit	0	0	0	10
McLaren Park	0	0	0	1
Meyers Tank	0	0	0	1
Silver Avenue	0	0	0	1
TOTALS	202	523	262	575

TABLE NO. 21
RECORD OF NO WATER, NOISE, ETC.

(a) Those for which the Department was responsible:

	1954-55	1955-56	1956-57	1957-58
Service or main broken	35	62	82	60
S/O at main or meter	9	8	8	11
District temp'y S/D	6	0	0	0
TOTALS	50	70	90	71
Percentage	8.5%	11.9%	15.8%	15.5%

(b) Those for which the Consumers were responsible:

	1954-55	1955-56	1956-57	1957-58
Choked House Pipes	104	166	131	111
House Valve Closed	71	43	41	36
" Valve out of Order	89	100	111	83
House Pipe Broken	19	42	35	36
False Reports	258	169	161	122
TOTALS	541	520	479	388
Percentage	91.5%	88.1%	84.2%	84.5%
TOTAL NO WATER	591	590	569	459

	1954-55	1955-56	1956-57	1957-58
Noise	60	105	80	85
Miscellaneous	251	132	166	200

TABLE NO. 22

RECORD OF POOR SUPPLY AND LARGE BILL COMPLAINTS

	1954-55	1955-56	1956-57	1957-58
Meter Only:				
Too Small	23	13	21	8
Service Only:				
Adequate	110	163	215	253
Inadequate	835	803	796	843
Meter and Service:				
Too Small	289	252	267	464
Housepiping:				
(Includes valve unless valve only is involved)				
Adequate	0	16	42	32
Inadequate	1088	1109	1226	1532
Valve Only:	128	46	8	0
Resurveys:	-	158	85	64
Total Number of inspections:	1,257	1,191	1,268	1,871
Large Bill Complaints:	8,407	8,489	8,232	9,730

TABLE NO. 23

LENGTH OF VARIOUS SIZES OF TRANSMISSION MAINS IN FEET

	16"	28"	30"	33"	36"	37"	39"	42"	44"	48"	54"	57"
Alameda	395(sub)				122,934							
Crystal Springs No. 1									85,181		358	
Crystal Springs No. 2			669					100			16,757	
Combined Sunset & Crystal Springs P/L No. 3												
San Andreas No. 1									26,850			
San Andreas No. 2											63,344	
Baden-Merced			27,955		2,260	1,560						
Pleasanton			27,432									
Niles-Irvington									15,600			
Bay Division No. 1								3,161(sub)				6,821
Bay Division No. 2								250(risers)			6,066(sub)	
Bay Division No. 3												
Alameda Creek Siphon												
Calaveras									30,570	1,045		
Palo Alto					28,049							
Sunset Pipeline									419		337	
Pilarcitos Aqueduct		7,480		169	648				730			
Stone Dam Aqueduct			501				1,814		2,106	2,894		
Crystal Springs Aqueduct									30	916	492	
TOTAL	395	7,480	56,557	169	153,891	1,560	1,814	3,511	161,486	4,855	87,354	6,821

TABLE NO. 23 (Cont'd)

LENGTH OF VARIOUS SIZES OF TRANSMISSION MAINS IN FEET (Cont'd)

	60"	61"	62"	66"	69"	72"	76"	78"	79"	90"	Total Feet	Miles
Alameda											123,329	23.36
Crystal Springs No. 1	4,948										90,487	17.14
Crystal Springs No. 2	84,317							650			102,493	19.41
Combined Sunset & Crystal Springs P/L No. 3	259							211	14,484		14,954	2.83
San Andreas No. 1											26,850	5.08
San Andreas No. 2											63,344	12.00
Baden-Merced											31,775	6.02
Pleasanton											27,432	5.19
Niles-Irvington											15,600	2.95
Bay Division No. 1	102,131										112,113	21.23
Bay Division No. 2			26,094	78,856			3,867				115,133	21.81
Bay Division No. 3						127,103 5,725*		43,184 1,908*		917 271*	179,108	33.92
Alameda Cr. Siphon					2,942	93				2,972	6,007	1.14
Calaveras											31,615	5.99
Palo Alto											28,049	5.31
Sunset Pipeline	48,088	24,646									73,490	13.92
Pilarcitos Aqueduct											9,027	1.71
Stone Dam Aqueduct											7,315	1.39
Crystal Springs Aqued.				238		603					2,279	.43
TOTALS	239,743	24,646	26,094	79,094	2,942	133,524	3,867	45,953	14,484	4,160	1,060,400	200.85

*--Tapers, Valves, Meters and Specials

Cost to replace with 6" pipe:
650,249 ft. @ $6.00 = $3,901,000

See next sheet also

TABLE NO. 24

PIPE RECORDS
CITY DISTRIBUTION SYSTEM

WROUGHT IRON AND STEEL PIPE

Size	Total Pipe in Ground July 1, 1957	Pipe Laid 1957-58	Removed or Abandoned 1957-58	Total Pipe in Ground June 30, 1958
3/4"	11,917'	0'	0'	11,917'
1"	35,329	0	685	34,644
1¼"	3,728	0	0	3,728
1½"	154,499	191	3,955	150,735
2"	236,239	808	12,213	224,834
3"	27,392	0	425	26,967
4"	3,886	0	0	3,886
5"	804	0	0	804
6"	3,809	0	0	3,809
12"	6,555	0	0	6,555
13"	456	0	0	456
16"	25,389	0	0	25,389
20"	66,322	0	0	66,322
22"	25,309	0	0	25,309
23½"	3,887	0	0	3,887
24"	48,880	0	0	48,880
30"	42,880	0	0	42,880
33"	2,409	0	0	2,409
36"	56,864	0	0	56,864
37½"	8,896	0	0	8,896
44"	22,974	0	0	22,974
48"	11,504	0	0	11,504
60"	26,216	0	0	26,216
TOTAL W.I. & S.	826,144'	999'	17,278'	809,865'

50,289' = 0,9 %
402,536' = 6,9 %
7,8 %

TRANSITE PIPE

Size	Total Pipe in Ground July 1, 1957	Pipe Laid 1957-58	Removed or Abandoned 1957-58	Total Pipe in Ground June 30, 1958
6"	17,305'	255'	0'	17,560'
8"	24,872	0	0	24,872
TOTAL TRANSITE	42,177'	255'	0'	42,432'

[illegible]

[illegible]
[illegible]

[illegible]

[illegible]

TABLE NO. 24 (Cont'd)

CAST IRON PIPE

Size	Total Pipe in Ground July 1, 1957	Pipe Laid 1957-58	Removed or Abandoned 1957-58	Total Pipe in Ground June 30, 1958
2"	26,265'	653'	250'	26,668' 87,424=1.5%
3"	60,900	56	200	60,756
4"	503,762	5,118	100	508,780
6"	1,813,630	19,535	97	1,833,068
8"	1,580,705	14,275	1,730	1,593,250
10"	6,100	0	0	6,100
12"	518,988	9,987	0	528,975
16"	319,921	1,449	0	321,370
20"	22,642	0	0	22,642
22"	19,058	0	0	19,058
24"	52,173	0	0	52,173
30"	5,297	0	0	5,297
Total C.I.	4,929,441	51,073	2,377	4,978,137
Total All	5,797,762	52,327	19,655	5,830,434 =100%
Miles	1,098.060	9.910	3.722	1,104.248

TABLE NO. 25

VALVE RECORDS

CITY DISTRIBUTION SYSTEM

JUNE 30, 1958

Gates		Service Gates		Blowoffs		Air Valves		Check Valves	
2"	139	3"	492	3/4"	10	3/4"	94	1½"	7
3"	253	4"	564	1"	42	1"	121	2"	10
4"	1,315	6"	408	1½"	271	1½"	470	3"	1
6"	4,288	8"	318	2"	919	2"	309	4"	9
8"	3,979	12"	14	3"	229	3"	5	6"	28
10"	6			4"	524	4"	0	8"	25
12"	911			6"	216	6"	12	12"	3
16"	478			8"	124	8"	284	16"	2
20"	24			12"	20				
22"	20			16"	3				
24"	63								
30"	23								
36"	20								
37½"	2								
42"	3								
48"	1								
TOTAL	11,525		1,796		2,358		1,295		85

Total of above valves = 17,059

Total including cocks = 21,019

Stop Cocks	
5/8"	18
3/4"	138
1"	198
1½"	967
2"	2,639
TOTAL	3,960

TABLE NO. 26
CONTRACT DATA 1957-58

Contract No.	Title of Contract	Division	No. of Bidders	Contractor	Date of Award	Date of Completion	% Complete 6-30-58	Bid Price	Contract Cost to 6-30-58
704	Excavation & Embankment-Balboa Reservoir	C.D.D.	4	Piombo Const. Co.	8/20/56	7/2/57	100	$ 362,714.20	$ 329,508.28
734	Const. of Hillsborough Tunnel for C.S. & Sunset P/L	Peninsula	5	P. Kiewit Sons' Co.	10/24/55	8/22/57	100	1,366,830.50	1,347,589.86
736A	Conversion of Valves for Power Operation	Pen. & Alameda	1	S.F.W.D.	6/11/57	1/17/58	100	12,571.76	5,804.72
736B	Conversion of Valves for Power Operation	Pen. & Alameda	3	Elec. Maint. & Service Co.	2/11/58	5/5/58	100	5,180.30	5,180.30
742	Excavation & Embankment Sunset Res.-South Basin	C.D.D.	7	Piombo Const. Co.	2/14/56	8/16/57	100	758,070.00	737,672.90
744	12" CIM in 8th Ave. bet. Calif. & Fulton Sts. & in Calif. St. bet. 23rd & 29th Aves.	C.D.D.	4	Michael Murphy, Jr.	12/12/55	Cancelled	-	63,107.50	-
775	Lining of Pilarcitos Redwood Box Flume	Peninsula	6	Cortelyou & Cole	7/9/57	9/9/57	100	14,652.00	14,172.52
778	4", 6" & 8" CIM in Upper Market St. Area	C.D.D.	3	S.F.W.D.	10/29/56	11/12/57	100	57,105.00	45,858.75
781	C.S. & Sunset Pipeline Sections Hillsborough Bridge to Burlingame	Peninsula	7	McGuire & Hester	3/19/57	3/5/58	100	848,902.00	831,381.11
786	Elec. Alter'tns-C.S. Pump Sta.	Pen'la	2	Elec. Mtnce. & Serv. Co.	5/28/57	8/22/57	100	8,734.00	9,094.62
790	8" CIM in McKinnon Ave., Barneveld Ave. to 175' East of Upton St.	C.D.D.	4	Michael Murphy, Jr.	3/12/57	7/2/57	100	4,330.95	4,191.61
791	12" CIM in Ellis, Steiner, Webster & Grove Sts.	C.D.D.	4	Michael Murphy, Jr.	10/8/57	3/25/58	100	66,133.00	62,017.85
793	Lighting in rooms 401,403 & 701-Water Dept. Bldg., 425 Mason St.	General	7	Decker Elec. Constr. Co.	6/18/57	7/30/57	100	2,048.00	2,048.00

TABLE NO. 26 (Cont'd)
CONTRACT DATA 1957-58

Contract No.	Title of Contract	Division	No. of Bidders	Contractor	Date of Award	Date of Completion	% Complete 6-30-58	Bid Price	Contract Cost to 6-30-58
796	6" CIM in Geary Blvd. Masonic to Arguello (Replacements)	C.D.D.	4	Associated P/L, Inc.	9/3/57	11/12/57	100	$ 20,825.00	$ 20,550.06
797	6" CIM in Holladay Ave. & in Valmar Terrace	C.D.D.	5	Louis L. Cima	6/4/57	9/11/57	100	7,144.50	6,873.99
798	6" & 8" CIM in Point Lobos Ave., 8th Ave. & 21st Ave. (Replacements)	C.D.D.	3	S.F.W.D.	8/13/57	10/18/57	100	8,080.00	7,316.40
799	6" CIM in Anderson, Cross, Venus, Weyland Sts. & in Quesada Ave.(Replacements)	C.D.D.	5	S.F.W.D.	8/13/57	1/9/58	100	20,367.00	16,906.08
800	6" CIM in Somerset, Boylston & Gaven Sts.	C.D.D.	5	E.J. Treacy	8/13/57	9/30/57	100	9,516.30	8,708.16
801	6" CIM in Polk St., Beech to North Point Sts.	C.D.D.	4	Fred T. Fairey	7/22/57	4/7/58	100	2,932.10	2,857.36
802	Annual Paving Contract for Street and Sidewalk Openings	C.D.D.	3	Pacific Pavement Co.,Ltd.	6/18/57	6/30/58	100	152,990.00	124,221.38
803	Painting Stairways, Corridors, part of 7th floor & all of 8th floor, 425 Mason St. Bldg.	Gen'l	3	D. Zelinsky & Sons	6/25/57	8/22/57	100	2,193.00	2,193.00
804	Razing Clarendon Pump Sta. Chimney	C.D.D.	3	Madsen & Son Constr. Co.	7/22/57	9/12/57	100	3,600.00	3,600.00
805	Painting part of Corp'n Yard Office - 639 Bryant St.	C.D.D.	3	Atlas Painting Co.	6/25/57	8/21/57	100	1,578.00	1,578.00
806	Sunset Reservoir-South Basin Lining and Roof	C.D.D.	8	Fruin-Colnon Contr'ct'g Co.	4/22/58	-	7	2,154,324.40	150,800.00
807	6" & 8" CIM in Felton St. & in Carroll Ave.	C.D.D.	6	Fred T. Fairey	8/13/57	9/13/57	100	8,254.60	8,058.77
808	Replacing Palo Alto Ave. Pump Station	C.D.D.	8	H.E.Rahlmann Co.	2/4/58	-	78	21,421.30	16,700.00

TABLE NO. 26 (Cont'd)
CONTRACT DATA 1957-58

Contract No.	Title of Contract	Division	No. of Bidders	Contractor	Date of Award	Date of Completion	% Complete 6-30-58	Bid Price	Contract Cost to 6-30-58
809	Cement Lining Portion of 44" Pilarcitos Aqueduct	Peninsula	1	Pipe Linings, Inc.	8/6/57	11/13/57	100	$ 7,992.00	$ 8,114.03
810	12" CIM in Pacific Ave., Washington, Jones & Green Sts.	C.D.D.	4	Michael Murphy, Jr.	9/24/57	12/4/57	100	33,521.00	33,085.67
812	Repairs to Upper Alameda Creek Diversion Dam	Alameda	13	L.F. d'Artenay Constr. Co.	9/10/57	11/1/57	100	18,020.00	16,581.43
813	4" & 6" CIM in Geneva Ave. & Louisburg St. (Replac'mts.)	C.D.D.	4	Fred T. Fairey	10/15/57	12/6/57	100	11,766.70	11,166.86
814	6",8",12" & 16" CIM in Forest Knolls Subd'vn #1	C.D.D.	5	Fred T. Fairey	8/20/57	11/14/57	100	66,163.50	65,403.86
815	Sidewalk & Chain Link Fence, Balboa Reservoir	C.D.D.	4	Madsen & Son Constr. Co.	9/10/57	11/11/57	100	22,034.00	21,532.32
816	8" CIM in Harvard St., bet. Felton & Burrows Sts.	C.D.D.	4	E.J.& H.T. Treacy, Jt.Ven.	10/15/57	4/28/58	100	3,561.15	3,467.02
817	Balboa Res. Development-Grading, Drains & Asphaltic Conc. Lining Work	C.D.D.	3	The Fay Improvement Co.	10/8/57	-	30	244,572.50	73,400.00
818	4" & 8" CIM in Marietta Park Subdivision	C.D.D.	5	Fred T. Fairey	11/5/57	-	78	15,538.00	12,100.00
819	4",6" & 8" CIM in Midtown Terrace #6	C.D.D.	4	Bernard Gayman	12/10/57	3/10/58	100	20,719.70	21,156.64
821	12" CIM in Dolores St., 21st to 24th Sts.	C.D.D.	6	Bernard Gayman	2/4/58	5/7/58	100	21,526.70	21,156.28
822	6" CIM in Claremont Blvd. & Chenery St.	C.D.D.	6	Michael Murphy, Jr.	2/18/58	4/8/58	100	13,809.80	12,692.01
823	12" CIM in O'Farrell & Gough Sts.	C.D.D.	4	Fred T. Fairey	5/6/58	-	92%	41,316.80	38,000.00
824	6" CIM in Prague St., Excelsior to Brazil Aves.	C.D.D.	7	Associated P/L, Inc.	2/18/58	6/10/58	100	5,087.30	5,782.17

TABLE NO. 26 (Cont'd)
CONTRACT DATA 1957-58

Contract No.	Title of Contract	Division	No. of Bidders	Contractor	Date of Award	Date of Completion	% Complete 6-30-58	Bid Price	Contract Cost to 6-30-58
825	4",6" & 8" CI Mains in Crocker Amazon Tract	C.D.D.	5	Michael Murphy, Jr.	3/4/58	5/9/58	100	$ 28,544.00	$ 27,053.25
826	Installation of Cathodic Protection System on B.D.P/L #1, nr. Willow Rd., San Mateo Co.	Pen'la	3	Ets-Hokin & Galvan	3/11/58	5/14/58	100	2,468.00	2,468.00
827	Chain Link Fence at Casey Quarry & Cherry Creek Sites, Hillsborough, San Mateo Co.	Pen'la	1	Colorado Fuel & Iron Corp.	3/4/58	4/14/58	100	2,118.95	2,142.04
828	2",4" & 6" CI Mains in Greenwich & Child Sts. & in Telegraph Place (Replacement of 1½" & 2" mains)	C.D.D.	6	Fred T. Fairey	3/25/58	5/13/58	100	7,350.30	6,960.81
829	6" CI Main in Delta St., Harkness Ave. to Hamilton St.	C.D.D.	5	Michael Murphy, Jr.	4/1/58	5/9/58	100	2,678.45	2,539.64
830	4",6" & 8" CI Mains in Ellis, O'Farrell & 24th Sts.	C.D.D.	5	Associated P/L, Inc.	4/15/48	-	51	44,565.20	22,700.00
834	Const. of Chemical Storehouse, Calaveras Reservoir	Alameda	1	Roy Madsen	5/20/58	-	2	10,874.00	200.00
836	12" CI Mains in 8th & 9th Aves., Calif. to Fulton Sts. & in Calif. St., 23rd to 29th Aves.	C.D.D.	5	Michael Murphy, Jr.	4/22/58	-	73	73,608.50	53,700.00
837	Drill New Well & Rehabilitate old Well (Pleasanton Town Wells)	Ala.	1	Western Well Drill. Co., Ltd	5/13/58	-	23	15,820.29	3,600.00
839	4" & 6" CI Main in Portola Dr., San Lorenzo Way to West Portal Avenue	C.D.D.	5	Fred T. Fairey	5/6/58	-	0	24,595.50	0
842	4" & 6" CI Mains in Caesar Hts.	C.D.D.	5	F.T.Fairey	5/20/58	-	0	8,770.50	0
843	Replace port. of University Mound 44" P/L at Islais Creek	C.D.D.	4	McGuire & Hester	6/24/58	-	0	39,341.00	0

ORGANIZATION AND PERSONNEL

J. H. Turner	General Manager & Chief Engineer
G. D. Burr	Assistant General Manager & Chief Engineer

ENGINEERING DIVISION

H. C. Medbery	Senior Civil Engineer
C. A. Lauenstein	Construction Engineer
J. P. Cava	Office Engineer

CITY DISTRIBUTION DIVISION

O. G. Goldman	Superintendent
A. G. Zecker	Assistant Superintendent

PENINSULA DIVISION

J. E. O'Marie	Superintendent
W. S. Firmstone	Assistant Superintendent

ALAMEDA DIVISION

C. L. Hughes	Superintendent
R. L. Borame	Assistant Superintendent

WATER PURIFICATION

H. W. Tracy	Engineer of Water Purification

COMMERCIAL DIVISION

J. J. Lyons	Manager
J. W. Cooper	Assistant Manager

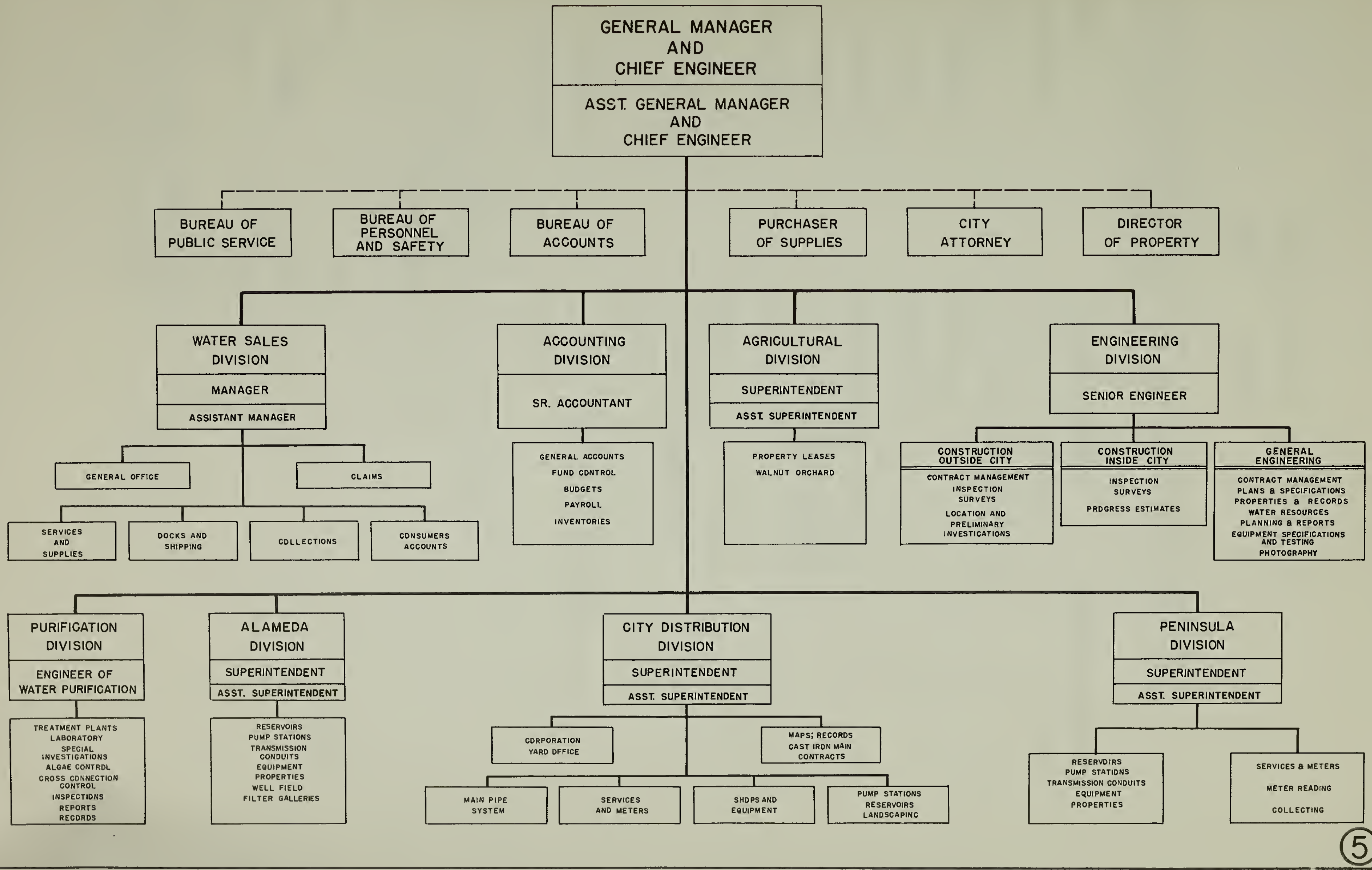
LANDS AND AGRICULTURE

J. G. Brucato	Superintendent
F. Steiner (Deceased May 6, 1958)	Assistant Superintendent
A. Spotorno	Acting Assistant Superintendent

ACCOUNTS

Z. H. Taylor	Senior Accountant

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
SAN FRANCISCO WATER DEPARTMENT
ORGANIZATION CHART



RETIRED

1957 - 1958

During the past fiscal year, the following employees were retired from service and recognition is given to their faithful service in the organization:

Employee	Classification	Year's Service
Vanner Anderson	Elevator Operator	15 years
Elmer Burke	Jr. Operating Engineer	31 "
James P. Cameron	Carpenter	14 "
Joseph P. Clark	Chauffeur	28 "
Minnie A. Gallivan	Telephone Operator	28 "
Michael D. Haley	Jr. Operating Engineer	8 "
Camillo Lucchesi	Laborer	11 "
John Petiti	Laborer	15 "
Arthur E. Roberts	Operating Engineer	32 "
Manuel Rose	Gardener	28 "
Daisy W. Schapiro	General Clerk-Stenographer	15 "
Charles Vanderbyll	Gardener	13 "

12 = 2.34 % of 514 authorized employees

IN MEMORIAM

William Frese	January 4, 1958	21 years
Eleanor L. Moody	January 7, 1958	11 "
Nicola Nasuti	March 8, 1958	24 "
Fred Steiner	May 6, 1958	8 "

4 = 0.78 % of 514 authorized employees

16 = 3.12 % of 514 authorized employees

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RECEIVED
JAN 19 1959
GEO. D. BURR